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The influence of induction programs on beginning teachers'well-being and professional development

Kessels, C.

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The influence of induction programs on beginning teachers' well-being and professional development

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Promotores

Prof. dr. N. Verloop

Prof. dr. D. Beijaard

Copromotor

Dr. K. van Veen

Overige leden

Prof. dr. J. H. van Driel, Universiteit Leiden

Prof. dr. J. D. Vermunt, Universiteit Utrecht

Dr. J. W. F. van Tartwijk, Universiteit Leiden

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CHAPTER 1

Introduction

Schools worldwide use induction programs to support beginning teachers in their first years of teaching. With induction programs, schools aim to contribute to beginning teachers' sense of well-being and professional development. But do induction programs have the positive influence expected of them? And what characteristics of induction programs are essential to contribute to beginning teachers' well-being and professional development? This thesis reports on two studies aimed at answering these questions, an interview study and a survey study. This chapter pays attention to the background of the studies (section 1.1), the problem definition and research questions (section 1.2), the relevance of the studies (section 1.3), and provides an outline of the thesis (section 1.4).

As the research literature available on teacher induction and induction programs in the Netherlands is limited, the first section is predominantly based on the literature from the USA and the UK (see also Beijgaard, Buitink, & Kessels, 2010). In the USA teacher induction programs have been the object of research for more than two decades. In the UK teacher induction programs are obligatory nowadays and thus explicitly part of policies regarding teacher certification. As a result, they have – though more recently than in the USA – become an object of research as well.

1.1 Background of the study

1.1.1 Defining the teacher induction period and induction program

The teacher induction period refers to the transitional period between pre-service preparation and continuing professional development, encompassing the first few years of teaching (Huling-Austin, Odell, Ishler, Kay, & Edelfelt, 1989). It is an intense phase in which teachers learn many things and have to deal with the typical difficulties of beginning teachers (Huberman, 1989; Veenman, 1984). Induction is a process of initiating new teachers into their new roles, both as teachers and as members of the school organization. As new members of the school organization, they often have to compete for a place amongst the more experienced teachers, adjust to the predominant school culture, and earn the appreciation of colleagues

(Kelchtermans & Ballet, 2002; Zeichner & Gore, 1990).

Beginning teachers' induction period is very important in view of their further careers.

Teachers form their professional identity, construct a professional practice and often decide to stay in the profession or to leave it (Feiman-Nemser, 2001).

A still increasing number of schools supports beginning teachers with an induction program: a more or less formalized program that is aimed to support beginning teachers in their first years of teaching after their pre-service education (Beijaard, Buitink, & Kessels, 2010).

Due to cultural differences and local policies, to some extent goals and content of induction programs in various countries differ. Nevertheless, it is increasingly acknowledged that induction programs are essential, for even a very comprehensive teacher education program cannot prepare teachers for their job completely (Britton, Paine, Pimm, & Raizen, 2003).

1.1.2 Goals of induction programs

In teacher education nowadays more opportunities are created for student teachers to practice and work like teachers in schools. It is supposed that this helps to reduce the so-called 'practice shock' (Gold, 1996), already described by, for example, Müller-Fohrbrodt (1978). After graduation, however, many new teachers still find themselves in a situation in which their knowledge and skills are tested in different types of classrooms, pertaining to other subjects, et cetera, than the ones they had become confident with during their teacher education period. They take on the responsibility of teaching on their own, and they have to balance contradictory views regarding their practice, which derive from the culture of their specific school, their personal expectations, and the professional norms in general (Beijaard & Papanaoum, 2002; Kelchtermans & Ballet, 2002; Tickle, 2000). The difficulties that beginning teachers have to cope with often lead to feelings of low self-efficacy, stress, and sometimes burnout (Gold, 1996). As a consequence of negative well-being, many beginning teachers choose to leave the profession (Harris & Farrell, 2007; Ingersoll, 2001; Advies van de Commissie Leraren, 2007; Smithers & Robinson, 2003). Against this background, many schools use induction programs with the aim of contributing to beginning teachers' state of well-being and professional development. An important policy argument is to prevent attrition amongst beginning teachers. Overall, induction should be seen as an investment in retaining teachers who – with assistance – can become effective in shorter time frames, and as an alternative to spending great amounts of money in replacing teachers.

Scholars plead for induction programs that enable new teachers not just to survive but to prosper during their first year(s) of teaching, and motivate them to strive for continuous improvement (Cole, 1994; Feiman-Nemser, 2003). Induction programs should contain a

balance in supporting beginning teachers in the following three areas (Beijaard & Papanaoum, 2002; Gold, 1996; McNally, 2002; Tickle, 2000):

- 1 *The socialization of the teacher in the school culture.* This includes many aspects of the school on which beginning teachers have to be informed, varying from school rules for teachers and students to agreements on the curriculum, goals, and mission of the school.
- 2 *Further development of knowledge and skills which are necessary for good teaching.* This means, on the one hand, extension of the action repertoire, and, on the other hand, adjustment of this repertoire to the specific situation in the school. Central is the development of a style of teaching which is personal and fits with the goals and mission of the school.
- 3 *The care of personal development.* This means psychological help aimed at the development of self-confidence, a positive self-image, learning how to deal with stress, et cetera.

However, in practice induction programs are often criticized for having limited content, a lack of theoretical basis, and insufficient resources. Induction mandates in many countries 'do not rest on an understanding of teacher learning, a vision of good teaching or a broad view of the role formal induction can play in new teacher development. Often they lack the necessary resources to support effective programs' (Feiman-Nemser, 2001, p. 1031). Wang and Odell (2002) concluded in their review study that the content of the support from an induction program is often limited to technical and emotional support. Mentors often help beginning teachers feel comfortable, but they offer little professional support that fosters a principled understanding of teaching (Little, 1990).

1.1.3 Research perspectives on teacher induction

Though teacher induction has been described and discussed since the 1950s (e.g., Amar, 1952), it is only since the 1980s - 1990s that teacher induction has received serious attention in research and the literature. Many researchers began to describe the sudden and sometimes dramatic and traumatic experiences of the transition from being a student to becoming a teacher (e.g., Corcoran, 1981; Rosenholtz, 1989; Veenman, 1984). In relation to these studies, several scholars emphasized the importance of induction programs to support beginning teachers (e.g., Feiman-Nemser & Parker, 1992; Huling-Austin, 1992).

Since teacher induction is a frequently discussed topic in the literature, from a research perspective two shifts in attention can be distinguished. In the beginning, induction programs were seen as a means to help beginning teachers overcome their difficulties and problems, mainly with classroom management and instruction (Gold, 1996). Beginning teachers were typically seen from a deficit model: though they may formally be qualified to teach, in general, beginning teachers have deficits they have yet to overcome. From the mid-1990s this way of viewing beginning teachers and induction programs changed: teacher induction was seen as a phase in the continuum of teachers' professional development. Teacher induction was not

so much about overcoming deficits as about pursuing high standards in teacher quality. We currently see another change in perspective. Teacher induction is considered part of the wider school policy with regard to teachers' professional development and beginning teachers' own initiatives receive more emphasis. Beginning teachers are viewed as fully capable teachers who are co-responsible for their professional development. Instead of being seen as teachers with deficits, they are considered valuable for the school; beginning teachers bring new knowledge and visions into the school and can actively contribute to the development of the school (Tickle, 2000).

In sum, in a period of about three decades the research perspective on teacher induction shifted from seeing beginning teachers as rather passive consumers of knowledge and experiences provided by others (deficit model) to a view of these as active contributors to their own and others' professional development (growth model). This has undoubtedly been influenced by a more general shift in our thinking about the role of teachers and teaching in contemporary society. New developments in society continually affect the mission and goals of schools and, thus, the work of the teachers in these schools. As with professionals in other fields, teachers' lifelong learning and management of their own learning process are increasingly found to be important, and are often explicit aspects of school policy.

1.1.4 Current research on teacher induction programs

The influence of induction programs has been investigated in a number of studies. It has been shown, first, that induction programs are generally relevant to beginning teachers' well-being (e.g., Chubbuck, Clift, Allard, & Quinlan, 2001; Molner Kelley, 2004; Reiman, Alan, Bostick, & Dee, 1995). These studies have shown that induction programs contribute to beginning teachers' feelings of being supported and being part of the school. Even an online support community contributes to the well-being of beginning teachers. Helsel, DeWert, Babinski, and Jones (2003) reported a positive effect on a number of variables related to well-being, such as confidence in teaching, reduced feelings of isolation, and enthusiasm for work. Also, induction programs have proven to contribute to the retention rates of beginning teachers (e.g., Odell & Ferraro, 1992; Scott, 1999; Smith & Ingersoll, 2004; Strong & St. John, 2001; Wilson, Darling-Hammond, & Berry, 2001).

A more differentiated picture arises from studies in which the effect of induction programs on the professional development of beginning teachers was investigated. Several of these studies have demonstrated positive effects of support with an induction program on the professional development of beginning teachers (Athanasas & Achinstein, 2003; Achinstein & Barrett, 2004; Feiman-Nemser, 2001; Luft & Cox, 2001; Napper-Owen & Philips, 1995; Norman & Feiman-Nemser, 2005). The findings of these studies showed how beginning teachers reframed their thinking on several teaching issues, changed their instruction methods, were

able to redirect their attention to individual students, and gained more awareness of the students' thinking and understanding. Strong and Barron (2004), however, showed a very limited influence of support. Based on an analysis of 30 hours of conversation between mentors and teachers, on average, they identified ten instances of direct suggestions from the mentor, which only evoked an elaborate response from the teacher on three occasions. Also, Carver and Katz (2004) showed that a mentor was not able to truly contribute to the professional development of three beginning teachers. A recent large-scale experimental study (Glazerman et al., 2008) showed no differences in a number of variables between teachers supported by a comprehensive induction program and teachers supported by a standard induction program with limited content. In relation to teachers' professional development, no differences were found in teachers' classroom practices or student achievement.

Although there is some consistency in research data regarding the influence of induction programs, most empirical studies on the influence of induction programs provide little insight into the characteristics of the induction program that are responsible for the found effects. Often it is even questionable whether the effects can indeed be attributed to the induction program (Smith & Ingersoll, 2004). This is due to a number of limitations:

- 1 Most empirical studies of the effects of induction programs are small-scale studies focusing on specific programs in particular schools, which makes it difficult to generalize. The studies document the value of teacher induction programs for teachers in a certain situation (school and/or district), but effects found in one situation do not necessarily apply in another situation.
- 2 Most studies do not include control groups, which makes it difficult to attribute certain research results to a treatment. For example, to be sure of effects of being observed and receiving feedback on beginning teachers' instructional qualities, it is necessary to compare these beginning teachers to other beginning teachers who are working in similar contexts.
- 3 Most studies only include the induction program and do not control for other factors that may explain certain effects. For example, supposed effects of induction programs may be attributed to, or heavily influenced by, the existing culture in schools. For example, it has been shown that school cultures characterized by structural cooperation have a greater impact on new teachers' experiences than school cultures that are more individualized (Williams, Prestage, & Bedward, 2001).

Furthermore, as mentioned in the introduction to this chapter, the literature referred to in the preceding sections pertains to teacher induction and induction programs in other countries than the Netherlands, particularly the USA and the UK. In the Netherlands, schools are not obliged to provide induction programs for beginning teachers. Many schools do have such programs, but there is no systematic information regarding their characteristics and their impact on beginning teachers. The literature nevertheless contains numerous recommendations of characteristics for induction programs.

Based on an international study including various examples of comprehensive induction programs, Britton et al. (2003) suggest that comprehensive induction programs consist of (combinations of) the following characteristics:

- 1 *Close contact with a more experienced teacher, i.e., mentor.* Generally speaking, hearing about another person's experiences helps. Assigning a beginning teacher to a mentor may result in more effective teaching in the early years because he or she learns from guided practice rather than from trial-and-error alone. Feiman-Nemser (2003) calls the mentoring of new teacher learning an 'educative practice' for which mentors must be trained. They may be good classroom teachers but might find it difficult to visualize what they think, explain principles underlying their work in practice, et cetera. Educative mentors do not only respond to here-and-now concerns; they also create learning opportunities and keep their eyes open for long-term goals, knowing that learning to teach is a long-term process. It is important that mentors are recognized and supported for their induction work in their schools.
- 2 *Collegial relationships with peers (other novice teachers).* Peers make it possible to share here-and-now experiences. Regular peer support sessions allow new teachers to interact, cooperate, and solve problems within a safe environment (Portner, 2001). Such sessions generally are very helpful in beginning teachers' development. Moreover, relationships with peers make them feel members of a 'community of practice'.
- 3 *Reflecting, inquiring, researching oneself and others.* It is widely acknowledged that a reflective stance, personally and professionally, is relevant to developing a teaching identity. In this respect, there is growing attention for research-based practices to enhance the teaching practice of new teachers (Gold, 1996; Tickle, 2000). Inquiry approaches are very promising for teacher learning because they require of beginning teachers to actively construct knowledge within learning communities, not in isolation from the environment, and to relate their experiences to other sources of information.
- 4 *Observing other teachers and being observed.* Observation of peers and other colleagues inside and outside the school may result in new insights. It is found to be important that new teachers have the possibility of observing good teaching practices modelled by more experienced colleagues. On the other hand, the formative feedback after being observed, usually by the mentor, addresses the new teacher's strengths and areas to develop. Adequate feedback may have a strong impact on professional development.
- 5 *Timing and sequencing of opportunities.* In the induction phase, beginning teachers learn many things. In the induction program it is important to consider beginning teachers' learning over time. Mentors ought to be aware of new teachers' topics of concern in order to adjust to these concerns by, for example, organizing appropriate learning activities and relevant literature.

Other characteristics that are found relevant for the induction of new teachers are: (orientation) meetings pertaining to aspects of school functioning, dispensation of extra tasks, reduction of the teaching load, no assignments to the most difficult classes, providing opportunities for interaction with colleagues, and a school leader who facilitates and encourages new teacher learning.

1.2 Problem definition and research questions

As discussed above, many schools use induction programs with the aim of contributing to beginning teachers' state of well-being and professional development. However, little is known about the actual influence of induction programs and the characteristics of induction programs that are essential to realize a positive influence. Also, we have no systematic knowledge about teacher induction and induction programs in the Netherlands.

The central question of the current research project is: 'What is the influence of induction programs on beginning teachers' well-being and professional development, and what characteristics of induction programs are essential to influence beginning teachers' well-being and professional development?' We wish to contribute to the existing literature by answering the central research question. In addition, we wish to gain insight into the ways in which beginning teachers in the Netherlands are supported by induction programs. For these purposes, we conducted two studies: an interview study with mentors and teachers from different schools, and a survey study amongst beginning teachers.

We conducted the interview study first. As a prerequisite for further research on induction programs, it was necessary to develop a frame of reference. Therefore, the first aim of this interview study was to develop an overview of the various characteristics of induction programs and to develop a system to distinguish elements of induction programs.

The second aim of this study was to conduct a preliminary exploration of how beginning teachers in the Netherlands are supported with induction programs and how teachers and mentors view the support provided by the induction program. The research questions to be answered by this study were:

- 1 What elements of an induction program can be distinguished?
- 2 How are beginning teachers in the Netherlands supported with an induction program?
- 3 What do mentors report on their ideas and actions concerning their role as mentor of beginning teachers?
- 4 What do teachers report on their experiences of the influence of the induction program?

In order to answer these research questions we used semi-structured interviews for both beginning teachers and their mentors. Appendix 1 contains the interview framework for the mentors, Appendix 2 contains that for the beginning teachers.

Based on the results of the interview study we developed a questionnaire and conducted a survey study among beginning teachers. The first aim of the survey study was to gain a more systematic insight into the way in which beginning teachers in the Netherlands are supported with an induction program. The second aim of this study was to gain insight into the degree to which induction programs contribute to the well-being and professional development of beginning teachers and into the relationship between specific characteristics of induction programs and the well-being and professional development of beginning teachers. We aimed to discover whether induction programs indeed fulfill the important role expected of them and, if so, what elements of an induction program are essential for induction programs to fulfill this role.

With this second study we aimed to take into account the limitations of many studies on induction programs (described in section 1.1.4) by conducting a large-scale study including many participants who had been supported by a variety of induction programs. In the questionnaire we distinguished between the various elements and sub-elements of induction programs found in the interview study. Several other variables were also included in the questionnaire. Because of this, we hoped to gain further insight into the relative importance of induction programs for the well-being and professional development of beginning teachers and, more specifically, into the characteristics of induction programs that are important to realize a positive influence on the well-being and professional development of beginning teachers.

The research questions answered by the survey study were:

- 1 What is the degree of the state of well-being of beginning teachers?
- 2 How are beginning teachers in the Netherlands supported with an induction program?
- 3 How do characteristics of the induction program relate to the well-being of beginning teachers?
- 4 How do beginning teachers experience the influence of an induction program on their professional development?
- 5 How can differences in experienced influence of the induction program on professional development be explained?
- 6 What are the characteristics of induction programs that teachers experience as influential on their professional development?

The questionnaire developed to answer these questions can be found in Appendix 3.

1.3 Relevance of the study

Teacher induction programs play a pivotal role in the period of transition from student to teacher. Besides other possible effects, such as contributing to the professional development of mentors and an open school culture, good induction programs are, above all, assumed to contribute to beginning teachers' well-being and their professional development. Contributing to beginning teachers' well-being is not only important for beginning teachers personally, but it may also help in decreasing the attrition rate amongst beginning teachers, which is an important issue for schools. A lower attrition rate amongst beginning teachers means more stability in the staff, fewer costs for seeking new personnel, and less investment in introducing new personnel. Contributing to beginning teachers' professional development means investing in the quality of (beginning) teachers and thus in the quality of education. Good induction programs, therefore, are of value not only for beginning teachers, but also for schools and students.

Up till now little knowledge has been available on what characteristics of induction programs are effective in the sense of promoting beginning teachers' well-being and professional development. The current research might contribute to our knowledge of the importance of various elements of induction programs and how beginning teachers in the Netherlands are nowadays supported by induction programs. The acquired insights into how beginning teachers are currently supported by induction programs and the importance of the various characteristics of induction programs also have practical relevance. The results of this study might provide useful information to policy-makers and schools for developing good induction programs or improving existing induction programs.

1.4 Overview of the dissertation

In this dissertation we present two studies in which it was investigated how beginning teachers in the Netherlands are supported with induction programs and how induction programs influence the professional development and well-being of beginning teachers.

Chapter 2 reports on the interview study with mentors ($N = 12$) and beginning teachers ($N = 22$). In this chapter the distinguishable elements and sub-elements of an induction program are described.

An element is a characteristic in which induction programs vary. For example, the intensity of an induction program or the facilities provided to beginning teachers and mentors are elements in which induction programs vary. The overview of the elements and sub-elements

formed the basis for the questionnaire developed for the survey study. Based on the interviews with mentors and teachers, this chapter also describes how beginning teachers in the Netherlands are supported by induction programs. Furthermore, two aspects of the role of the mentor are discussed to which mentors appeared to respond with different visions and practices. One aspect pertains to the mentoring approach: how mentors attempt to support beginning teachers in their professional development. The other aspect pertains to the focus of mentors: the content of the mentoring. Lastly, this chapter describes how beginning teachers experienced the influence of the induction program that supported them.

Chapters 3 and 4 report on the survey study. In the survey study we aimed to investigate on a larger scale how beginning teachers in the Netherlands are supported by induction programs. In addition, an important goal was to gain further insight into how induction programs influence the well-being and professional development of beginning teachers. The survey study was conducted using the internet. In order to reach a large group of respondents, we used a multi-stage method to approach beginning teachers. Teacher education institutes were asked to send their former students an email in which they were invited to participate in our study. Three hundred and sixteen teachers responded to our invitation and filled out the online questionnaire. The data were analyzed in a quantitative manner.

Because Chapters 3 and 4 are to be published as articles in scientific journals (requiring that they be compatible and independent of each other), there is overlap in parts of the method sections of these chapters.

Chapter 3 focuses on well-being. The concept of well-being, the results of previous research regarding induction programs, and the well-being of beginning teachers are discussed. With regard to the research results the chapter first reports on the data describing reports of beginning teachers in the Netherlands on how they are supported by induction programs. The degree of well-being felt by the respondents in their first year of teaching is described next. Lastly, the chapter reports on the relationship between the variables included in the questionnaire; we focus on the question: 'What is the importance of induction programs to the well-being of beginning teachers?' In order to answer this question, variables other than the elements and sub-elements of induction programs were also included in the analyses, namely, the school culture and several contextual and personal variables.

In Chapter 4 the focus is on the results of the survey study pertaining to the experienced influence of induction programs on the professional development of beginning teachers. In this chapter, previous research into induction programs and their influence on beginning teachers' professional development is discussed, revealing a differentiated picture. The results from our study pertaining to beginning teachers' experiences of the influence of the induction program on their professional development are presented, as are the results pertaining to the relationship

between characteristics of the induction program and the experienced influence on professional development. Again, other variables were included in the analyses. The results regarding the relationship between characteristics of the induction program and the experienced influence on professional development gave rise to further analysis of the data collected from a subgroup of the respondents, namely, the group of respondents that experienced a strong influence of the induction program on their professional development. By analyzing the reports of these respondents on how they were supported by an induction program, we aimed to gain better insight into the characteristics of induction programs that are essential to contribute to beginning teachers' professional development.

In Chapter 5, the main findings and conclusions of the interview study and the survey study are summarized, discussed, and related to each other. Suggestions for further research and implications for teacher induction are described.

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CHAPTER 2

The current state of practice in supporting beginning teachers with an induction program*

This chapter reports on an interview study with mentors and beginning teachers. The study's aim was to gain insight into how beginning teachers in the Netherlands are supported with induction programs. Based on the interviews, five main elements in which induction programs differed were identified: (1) the program's intensity, (2) the facilities that were offered, (3) the format that was used, (4) the program's content, and (5) the mentor's role. The general picture that arose was that, though many schools use an induction program, most programs focus mainly on providing emotional support, practical information, and help with classroom management. Furthermore, teachers reported an influence on their professional development, but they experienced an even greater influence on their well-being. The limited content of induction programs can be understood by the finding that mentors focus strongly on teachers' concerns; they aim to help beginning teachers survive in the classroom and feel comfortable. A few mentors focus more on the students' concerns; their goal is for students to learn well and feel well while doing so. This focus resulted in more elaborate and intensive support, with more attention for pedagogy and the moral and psychological development of students. We consider it a challenge for schools and mentors to also look at teacher induction from the perspective of students' needs.

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The current state of practice in supporting beginning teachers with an induction program.

2.1 Introduction

The most impressive phase in a teacher's career is often the induction period: the transitional period between pre-service preparation and continuing professional development, encompassing the first few years of teaching (Huling-Austin, Odell, Ishler, Kay, & Edelfelt, 1989).

It is a defining period in which 'the student of teaching' grows into the role of 'teacher of students'. Teachers form their professional identity and construct a professional practice (Feiman-Nemser, 2001a). They also embark on a socialization process in the school.

Beginning teachers have to adjust to the procedures and culture of a school, and they have to earn the appreciation of their new colleagues (Kelchtermans & Ballet, 2002; Zeichner & Gore, 1990). For many teachers, the induction period is an intense phase in which the learning curve is steep and emotions run high (Huberman, 1989; Veenman, 1984).

An increasing number of schools supports beginning teachers with an induction program: a more or less formalized program that is aimed at supporting beginning teachers in their first years of teaching after their pre-service education (Beijaard, Buitink, & Kessels, 2010). However, the content of induction programs varies across schools and countries. There is little systematic knowledge available about the way beginning teachers in the Netherlands are supported with induction programs. We aimed to gain more insight into this with an exploratory interview study. The central research question of the current study was: 'What is the current state of practice in the Netherlands with regard to supporting beginning teachers with an induction program?' An answer to this question contributes to the international knowledge base of how schools use induction programs to support teachers in their first year(s) of teaching. Also, the findings of this study illustrate variation between mentors and induction programs, serving as a guide to schools and policy makers in the Netherlands specifically, but also offering an informative perspective on teacher induction in general.

2.2 Theoretical framework

2.2.1 Goals of induction programs

The developments regarding induction programs stem from the 1980s – 1990s. In this period, more attention arose for the difficulties beginning teachers might face and their lack of support (e.g., Corcoran, 1981; Rosenholtz, 1989; Veenman, 1984). Several scholars emphasized the importance of comprehensive induction programs for beginning teachers (e.g., Feiman-Nemser & Parker, 1992; Huling-Austin, 1992), mainly for two reasons.

First, an induction program is important to sustain the professional development of beginning teachers. Beginning teachers may be well prepared by pre-service education, but an important

part of what teachers have to learn can only be learned while actually teaching. In the classroom, beginning teachers have to put their knowledge and skills into practice, and they face issues that were not addressed during their pre-service education. Some of the issues that many beginning teachers find difficult include classroom management, student motivation and differentiation, grading, and dealing with individual students' problems (Veenman, 1984). Though experience is often considered the most important source of learning, several studies have shown the pitfalls of learning to teach based merely on teaching experience (Feiman-Nemser & Buchmann, 1987; Johnston, 1994; Zeichner, 1990). It is not easy to critically observe one's own behavior and know how to improve this. A lack of support in the induction phase leads to narrow professional development of teachers. Lortie (1975) described how many beginning teachers become survivors when left to their own devices; they learn by trial and error what strategies more or less work, but without understanding why they work or how they could work better. Therefore, good teacher education needs to include a comprehensive induction program, providing an impulse towards continuous improvement (Cole, 1994). The second reason why it is important to support beginning teachers with an induction program is to contribute to beginning teachers' sense of well-being. The difficulties that beginning teachers have to cope with often lead to feelings of low self-esteem, stress, and sometimes even burnout (Gold, 1996). Gold emphasizes the importance of induction programs including emotional and personal attention to meet beginning teachers' psychological needs, because teachers cannot teach well unless these are met (Gold & Roth, 1993). Teachers may possess good teaching and management skills, but when they lack confidence in themselves, they cannot tap into these skills (Ward, 1987). Moreover, as a consequence of not feeling well, many beginning teachers choose to leave the profession, which is having a serious impact on schools in many countries (Advies van de Commissie Leraren, 2007; Harris & Farrell, 2007; Ingersoll, 2001; Smithers & Robinson, 2003). Teacher shortages are partly caused by increased numbers of teachers reaching retirement, but even more so by the large numbers of beginning teachers leaving the profession (Ingersoll, 2001). An important policy argument related to the well-being of beginning teachers, therefore, is that induction programs prevent teacher attrition.

2.2.2 Developments in induction programs

From a research perspective, two shifts in attention can be distinguished in the evolution of teacher induction:

- 1 From the mid-1980s till the mid-1990s, the emphasis was placed on instruction-related support, necessary for a successful classroom practice (Gold, 1996). Teacher induction was typically viewed from a deficit model: beginning teachers are not yet able to perform all tasks well, and an induction program has to help them to bridge the gap. This implied that

the attention was mainly focused on organizing and managing instruction, and developing instructional routines.

- 2 From the mid-1990s on, teacher induction was increasingly shaped into an integrated approach for providing support, development, and assessment based on high standards for teaching and learning, built on school/university partnerships, and featuring a strong mentoring component that not only consisted of providing support but offered challenges as well (Feiman-Nemser, 2001a). Owing to beginning teachers' focus on learning to teach in practice, induction became a phase in a teaching career: a 'bridge' between teacher education and teachers' continuing professional development.
- 3 Nowadays it is widely agreed that an induction program is most meaningful for new teachers when it takes place in a school setting where it is part of a wider policy of professional development for all teachers. In this view, new teachers themselves are supposed to actively contribute to a school's development, emphasizing that new teachers themselves have much to offer and contribute to education and the teaching profession (Tickle, 2000). The induction of new teachers has increasingly become an aspect of a school's learning community.

In summary, over a period of about two decades, the research perspective on teacher induction has shifted from seeing beginning teachers as rather passive consumers of knowledge and experiences provided by others (deficit model) to seeing them as active contributors to their own and others' professional development (growth model).

Meanwhile, not only in research but also in practice, the attention for teacher induction has increased spectacularly. Smith and Ingersoll (2004) showed the developments in the use of induction programs in the USA from 1990 to 2000: whereas in 1990 about 40% of beginning teachers reported being supported with a formal induction program, in 2000 this number had risen to about 80%. In many other countries (e.g., Australia, Great Britain, China, Israel, New Zealand, and the Netherlands) induction programs have slowly become more common as well. Britton, Paine, Pimm, and Raizen (2003) studied induction programs in Shanghai, France, Japan, New Zealand, and Switzerland and found interesting differences in their characteristics and goals. For example, in France, induction is aimed at 'molding' the beginning teachers into the teaching profession and includes courses and a period of assisting in a second school. In Switzerland, the goal of teacher induction is much more to sustain the development of the whole person. Induction programs offer a large variety of activities, including collegial counseling, co-operation, and reflection. Shanghai and Japan's teacher induction is seen as a critical component in the process of learning to teach and is aimed at developing strong teaching skills because pre-service education includes only limited classroom experience.

Though we have examples of comprehensive induction programs including a variety of activities and a high intensity across different countries (e.g., Britton et al., 2003; Guha, Shields, Tiffany-Morales, Bland, & Campbell, 2008; Luft, 2009; Scott, 2001), in general, induction programs are criticized for having limited content and a lack of a theoretical framework. Feiman-Nemser (2001a) states that most induction programs do not rest on an understanding of teacher learning, a vision of good teaching, or a broad view of the role that an induction program can play in new teachers' development. Also, Wang and Odell (2002) conclude in their review study that the content of the support within an induction program is often limited to technical and emotional support. Mentors often help beginning teachers feel comfortable, but they offer little professional support to foster a principled understanding of teaching (Little, 1990). Few mentors offer 'educative mentoring': mentoring that encourages new teachers to question their teaching practice and develop strategies to improve or refine it (Feiman-Nemser, 2001b). Studies have revealed several factors that often limit the quality of mentoring. The first factor pertains to the school culture. Induction programs, in which mentoring is often the most important component, are a form of collegial cooperation in order to professionalize the beginning teacher and perhaps even the mentor him or herself. Collegial cooperation requires trust in one's colleagues, and that doors literally be opened. Little (1990) noted, however, that though the idea of teacher collaboration has become very popular, the school culture in which teachers have to cooperate has not really changed. Privacy and individuality remain the norm. A second limiting factor is that a structure in which mentors and teachers have the opportunity to work together is often missing. This structure requires resources for both teachers and mentors, but induction programs often fall short (Feiman-Nemser, 2001a). A third factor is that mentoring new teachers in a way that promotes their professional development is not an easy job, and mentors need the opportunity to prepare and professionalize themselves in order to realize this. Yet, they often do not get this opportunity (Athanasios et al., 2008).

In sum, in recent decades we have seen positive developments in the area of induction programs in many countries. Yet, characteristics and goals vary across induction programs and countries. Though there are examples of comprehensive induction programs, programs are often criticized for having limited content and no theoretical framework. Mentors tend to focus on providing emotional support instead of professional support.

2.2.3 Research aim

In the current study, we aimed to investigate how beginning teachers in the Netherlands are supported with an induction program. To this end, we conducted an interview study including 12 mentors and 22 teachers from 12 secondary schools. Mentors and teachers were asked about their experiences with the induction programs at their schools. An important goal of the current

study was to provide an overview of the various elements of induction programs and their variation, hereby creating a basis for further research on induction programs and their influence. The specific research questions we aimed to answer in the current study were:

- 1 What elements of an induction program can be distinguished?
- 2 How are beginning teachers in the Netherlands supported with an induction program?
- 3 What do mentors report on their ideas and actions concerning their role as mentor of beginning teachers?
- 4 What do teachers report on their experiences of the influence of the induction program?

2.3 Method

2.3.1 Sample

In order to answer our research questions, we interviewed mentors and beginning teachers from 12 secondary schools. Our selection of schools represented a variety of induction programs. Since the teacher education institute where this research project was based has contacts with many schools, we were able to select schools that use induction programs with limited content, as well as schools that use elaborate induction programs with a long history of development and improvement. We also aimed to include schools without any form of an induction program, but were not able to find one. Other characteristics on which we based our selection were the size of the school, the demography (urban or suburban), and the level of education provided to the students (ranging from pre-vocational secondary education to pre-university secondary education).

We intended to interview one mentor and two teachers from each school. At two schools, only one beginning teacher was willing to participate in our study, so ultimately we interviewed 12 mentors and 22 teachers. We chose to interview both mentors and teachers for this study because both fulfill important roles in induction programs. The mentors interviewed were the main, or among the main, responsible persons for the induction program at their school. All of the mentors had at least nine years of experience in teaching, and at least three years of experience in mentoring. Three of the 12 mentors were female.

The teachers interviewed had finished their induction period, but had not taught for more than four years. We made sure to include teachers qualified to teach in the lower levels of secondary education, a second-degree qualification, and teachers qualified to teach in the higher levels of secondary education, a first-degree qualification. We did not specifically select on the basis of the subject area in which the teachers or mentors were teaching. Table 2.1 presents an overview of the interviewees.

Table 2.1 Descriptions of the interviewees

Mentor (N = 12)		N
Gender	Female	2
	Male	10
Subject Department	Language and Arts	5
	Science and Mathematics	2
	Social Studies	5
Teacher (N = 22)		
Gender	Female	14
	Male	8
Subject Department	Language and Arts	10
	Science and Mathematics	7
	Social Studies	5
Degree of Qualification	First Degree	9
	Second Degree	13

2.3.2 Data collection

We chose to use interviews since this best suited our aim of an exploratory study researching how teachers in the Netherlands are supported with an induction program. The interviews provided a good opportunity for teachers and mentors to talk about their personal experiences. They also provided the interviewer with the opportunity to react to the interviewees' responses and, if necessary, ask further questions. The interviews were semi-structured.

Mentors were asked about:

- 1 the content of the induction program: its organization, intensity, the facilities offered, and the topics that receive attention;
- 2 their role in the induction program: their goals, how they aimed to achieve them, and their ideas about the process of learning to teach and the induction program's role in this;
- 3 their perception of the induction program's influence on beginning teachers (see Appendix 1).

Teachers were asked about:

- 1 their experience of the induction program: its content, intensity, facilities available to them, et cetera;
- 2 their opinion of what is important in an induction program;

3 the influence the induction program had on them: its influence on the process of learning to teach, their well-being, and their decision to stay in the profession or not (see Appendix 2). The interviews took place at the schools and lasted approximately 1 - 1.5 hours. The interviews were audio-taped and later transcribed verbatim.

2.3.3 Data analysis

The interviews were analyzed in a qualitative-interpretative manner (Baarda, Theunissen, & De Goede, 1995; Maso & Smaling, 1998; Miles & Huberman, 1994). In order to answer the first research question about the distinguishable elements of an induction program, we used the interviews with both beginning teachers and mentors. This analysis consisted of several steps. First, two interviews with mentors and two interviews with teachers were randomly selected and read. The fragments concerning the way beginning teachers were supported with an induction program were selected.

Second, these fragments were coded in terms of elements. An element is a characteristic of an induction program in which induction programs differ. An example of an element is the intensity of the induction program. Five main elements were identified, of which some were subsequently divided into sub-elements.

Third, the elements were defined, followed by a description of their variation. One of the elements of the induction program we distinguished pertained to 'the mentor'. It became clear that the interviews with teachers and mentors revealed major differences regarding the mentor's role. Because information from the mentors' perspectives would be considered when answering the third research question (which is fully devoted to the mentor's point of view), it was decided that further analysis of this element would be based only on the interviews with teachers.

In the fourth step, two more interviews with teachers and two interviews with mentors were randomly selected and analyzed in order to check the definitions of the elements we distinguished and the description of their variation. The scheme of elements and sub-elements was somewhat adjusted and the described variation was further completed.

Fifth, the adjusted scheme was discussed with fellow-researchers, and, after some fine-tuning we established a final scheme of elements and definitions (see Table 2.2).

Subsequently, this scheme formed the basis for answering the second research question pertaining to the way beginning teachers are supported with an induction program. Based on the scheme of elements, the total set of data was analyzed. All interviews with beginning teachers and mentors were coded according to the scheme and summarized in a large table. Based on this coding, the second research question was answered. Where relevant, the report of these results in the next section is illustrated by quotes from the interviews.

The analysis undertaken to answer the third research question about mentors' ideas and actions concerning their role in the induction programs was based solely on the interviews with mentors. First, fragments were selected that related to the mentors' ideas and actions concerning their role in the induction programs.

While reading these fragments, we found two interesting themes on which mentors differed, namely, the mentoring approach (referring to how mentors tend to guide the professional development of beginning teachers), and the focus of mentors (referring to what the mentoring was about). For both themes we were able to define two types of visions.

After defining the themes and the kinds of visions we encountered, we read the interviews in their entirety once more. In this step, we looked for evidence and counterevidence for the different types of visions of the two themes. Comparing the evidence and counterevidence from the interviews clearly established similarities and differences between mentors. We report on these similarities and differences, illustrated by quotes from the interviews. We did not classify the mentors since evidence was not always unequivocal for one kind of vision.

The fourth research question concerned the induction program's perceived influence on the teachers. To answer this question, analysis of the data was based solely on the interviews with teachers.

In each interview the fragments about the perceived influence were selected.

The selected fragments were summarized and interpreted per interview. By looking at each interview we were able to interpret the results in their context. A scheme was used to simplify this process. In the interviews the teachers were asked how the program influenced them in a number of areas, including stress, self-confidence, motivation, commitment to the school, and several skill areas. The scheme noted for each particular area whether the interviewees had experienced a positive influence or not.

Based on the interpretations of each interview and the scheme, the fourth research question was answered, distinguishing between the program's influence on the teachers' well-being and their professional development. The reported results are illustrated with quotes from the interviews.

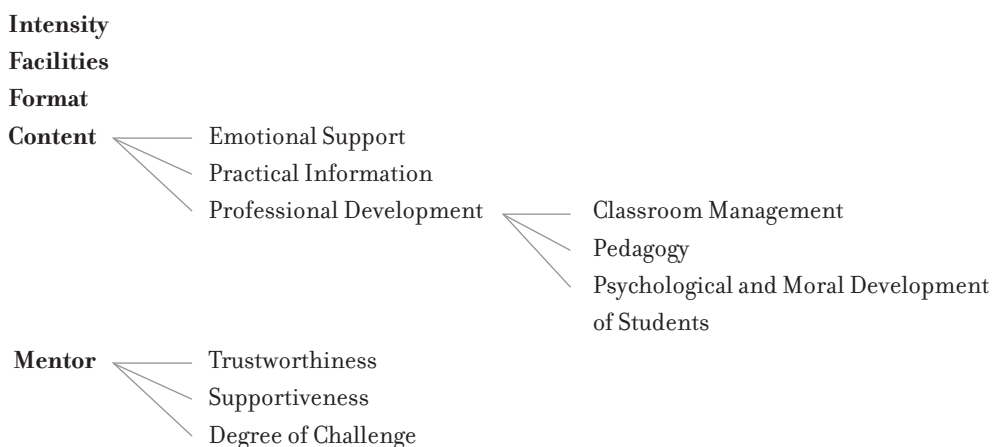
2.4 Results

In this section, the results of the interview study with mentors and beginning teachers are presented per research question.

2.4.1 Elements of an induction program

Based on the interviews with mentors and beginning teachers, five main elements of induction programs were distinguished, two of which were further divided into sub-elements. Table 2.2 presents these distinguishable elements of an induction program.

Table 2.2 Overview of elements of induction programs



The first distinguishable element of induction programs is their *intensity*. The intensity of the induction program refers to the amount of time that is planned for beginning teachers to spend on activities related to the induction program and the period of time during which this takes place. The element *facilities* refers to the resources available to mentors and beginning teachers in order to enable the realization of the induction program. These mainly consist of the time allotted to beginning teachers and mentors to participate in induction program activities, as well as schooling for mentors, creation of a physical space for meetings of mentors and teachers, matching time schedules with planned induction activities, and offering dispensation to beginning teachers from certain tasks.

The induction program's *format* refers to the type of activity or activities that are included in the induction program. Different kinds of activities that are used in an induction program are, for example, mentoring, collegial counseling, observing colleagues while teaching, and attending workshops.

The induction program's *content* refers to the subjects that receive attention. We identified three main areas that receive attention, namely:

- 1 *Emotional Support*, such as helping the beginning teacher feel at ease, paying attention to stress-relief, and stimulating self-confidence.

- 2 *Practical Information*, such as explaining school rules, showing the operation procedures of equipment, and notifying beginning teachers of meetings.
- 3 *Professional Development*, by increasing the teachers' practical knowledge and skills. Professional development was further subdivided into:
 - a attention for *Classroom Management*, referring to the ability to lead students and create a quiet, clear, and organized learning environment;
 - b attention for *Pedagogy*,¹ referring to the ability to create a powerful learning environment in which students can develop skills and obtain the required knowledge;
 - c attention for the *Psychological and Moral Development of Students*,² referring to a teacher's ability to create a safe learning environment, sustain the social-emotional and moral development of students, and help students become responsible persons.

The last main element is the *Mentor*. As explained in the previous section, in which this study's method was described, the results pertaining to the first and second research questions concerning this particular element are based solely on the interviews with teachers. Based on these interviews, three important characteristics of the mentor were distinguished, namely:

- 1 The mentor's *Trustworthiness*, referring to his or her ability to create a base of trust with which the teacher feels safe and comfortable.
- 2 The mentor's *Supportiveness*, referring to the degree in which the mentor stimulates and motivates the teacher in a positive way.
- 3 The mentor's *Degree of challenge*, referring to the degree in which the mentor is able to challenge the beginning teachers in their professional development.

2.4.2 The way beginning teachers in the Netherlands are supported with an induction program

The second research question pertains to the way beginning teachers in the Netherlands are supported with an induction program. The results pertaining to this research question are presented based on the elements and sub-elements of an induction program described above.

Intensity of the induction program

Though all schools used an induction program, the intensity of the programs varied strongly. The least intensive programs consisted of around 15 hours of support, while the most intensive programs offered about 80 hours of support, with the exact number of hours depending on the teachers' needs. We classified the induction programs into three categories. Six induction programs were classified in the category 'low to moderate intensity', consisting of 15 to 25 hours of support for beginning teachers. Three induction programs were classified in the

1 In Dutch, the term 'pedagogy' can be translated as '(vak)didactiek'.

2 In Dutch, 'the psychological and moral development of students' can be translated as 'pedagogiek'.

category of induction programs with a 'moderate intensity', consisting of 25 to 50 hours of support, and three induction programs were classified in the category 'high intensity', consisting of more than 50 hours of support for each teacher.

In the second year of teaching schools offered hardly any guidance. In the high-intensity induction programs, further individual support from a mentor was sometimes possible if requested by a teacher, and in one high-intensity induction program a few group meetings for collegial consultancy were organized.

It is important to note that in all categories we found teachers reporting fewer hours of induction than the number of hours officially planned for. This was partly due to practical constraints, but in a number of cases the teachers themselves chose for less support, sometimes because they had found support outside the induction program, often from a close colleague, or sometimes because they were just not interested in the support that was offered. In spite of differences in intensity, in all categories the teachers we interviewed were generally satisfied with the amount of support they received. Teachers who were supported by a high-intensity induction program experienced the support as valuable to their teaching practice, while teachers who were supported by a low-intensity induction program generally viewed additional support as a burden.

Facilities

The types of facilities offered in a school's induction program correlated strongly with its intensity. Schools with a high-intensity induction program usually had several mentors who were responsible for the support and guidance of beginning teachers and allocated a considerable number of hours for the induction program. At schools with a low-intensity induction program, often only one mentor was responsible for the support and guidance of beginning teachers, with a limited number of hours allocated for induction. In general, mentors received the amount of time that was required for their work in the induction program. Besides allocating time for the mentors, all schools gave beginning teachers dispensation from several standard teacher duties, for example, supervising the students during lunch-break, substituting for colleagues who are ill, and mentoring a class. All mentors received some preparation for their job as mentor, but at schools with high-intensity induction programs this included serious training. Schools with high-intensity programs also allocated specific time for the beginning teachers to participate in induction program-related activities and took these activities into account in their timetables as well.

Format

We found several formats in use to support beginning teachers. All schools scheduled an introduction meeting to welcome beginning teachers, as well as group meetings for beginning teachers in which they could share their experiences, and individual meetings between the mentor and mentee. Often these individual meetings were accompanied by class visits from the mentor.

Though all induction programs (officially) included the above-mentioned formats, the frequency, duration, and character of the used formats differed. An introduction meeting could, for example, consist of two hours in which the new teachers were briefly introduced to each other, the school rules were explained, and the teachers received a school tour. At the opposite end of the spectrum the introduction meeting lasted two days, including considerable opportunity for the new teachers to meet each other, a workshop about 'how to start the first day', and a meeting with the staff. We also found differences in the way group meetings for beginning teachers were organized. In some induction programs these meetings lasted one hour and were mainly meant to provide beginning teachers with the opportunity to talk to each other and 'clear their heads'; in other induction programs these meetings were highly structured, lasted at least two hours, and were strongly aimed at professional development. We found similar differences in the individual meetings between mentors and beginning teachers. In some cases the meetings with a mentor after a class visit took about 10-15 minutes in which mentor and mentee generally discussed what had gone well and what could be improved. The opposite consisted of conversations lasting approximately an hour, in which mentors and beginning teachers, sometimes through use of video, thoroughly analyzed the lesson and discussed how it could be improved. At most schools, beginning teachers were supposed to have two mentors: one general mentor who did not necessarily teach in the same subject department and was formally included in the induction program, and one mentor from the same subject department. The subject departments themselves were often responsible for providing mentoring to new colleagues in their own department, which frequently led to little or no support from a mentor from the same subject department. In practice, most teachers were thus supported by one mentor. Other formats used to support beginning teachers consisted of specific training courses and classroom observations of experienced colleagues. We saw these formats mainly in the induction programs with a high intensity. One induction program also included a day in which beginning teachers visited another school to experience a different teaching method.

Content

All induction programs included attention for the three main areas: emotional support, practical information, and professional development. Still, the attention for professional development was usually rather limited. In most cases the focus seemed to lie on providing emotional support and practical information. In these induction programs mentors aimed to welcome the new teachers, making them feel at ease and stimulating them to become part of the school community. In these cases classroom management generally received considerable attention, while pedagogy and the psychological and moral development of students received very little attention. The induction programs in which there was a lot of attention for professional development were of a moderate or high intensity. However, the degree of attention for the various areas strongly depended on the mentor.

The mentor

A very important element of an induction program is the mentor. When asked open questions about their experiences of the induction program, teachers often referred to their mentor. They did not value the formal program so much, but appreciated the warm welcome by the mentor, the mentor's enthusiasm or his or her capability to observe both good and bad things. Also, when a teacher was not satisfied with the support from an induction program, he or she criticized the mentor and not, for example, a lack of time or the facilities that were provided. Based on the interviews with beginning teachers we identified three important characteristics of mentors. The first characteristic that beginning teachers spoke of is the degree to which the mentor is able to create a base of trust in order for teachers to feel at ease with their mentor in such a way that they dare ask for help when faced with a problem. No teacher complained about having problems with respect to trust issues with their mentor, but trust was frequently mentioned as an important characteristic. In eleven of the twelve induction programs, the roles of assessor and mentor were strictly separated, which the teachers often experienced as an important condition for trusting their mentor. Besides this formal arrangement of a separation between assessment and guidance, teachers also spoke about the mentor's attitude and the importance of the mentor's not judging mistakes or imperfect teaching in order for the teacher to be able to trust and feel at ease with him or her. One teacher reported the following about this:

I find it most important that you feel safe. That you dare to make mistakes and dare to say it out loud. When your mentor makes you feel defensive, you cannot talk about your mistakes anymore.

The mentor's supportiveness is the second important characteristic that we identified based upon the interviews with the teachers. Most teachers felt supported by their mentor. In the interviews, teachers very much appreciated the mentor's enthusiasm, positive attitude, energy, personal interest, and degree of involvement. According to the teachers, these characteristics helped them to maintain their confidence and their own enthusiasm for their work, and they prevented them from becoming stressed or quitting their job. One of the teachers expressed this as follows:

Well, that is the most important. Knowing that 'Hey, I am being supported'. They clearly say what you do well. And that can take you far. Then you think 'OK, it is all right'. And then you can work on the things that are not that good. ... Ellen is someone who cares for her colleagues, she really asks 'How do you feel?' ... Again the sincerity of 'How are you doing', takes away a certain pressure.

The third characteristic of the mentor is the degree to which he or she can challenge the teacher in his or her professional development. A few teachers explicitly valued their mentor's capacity to stimulate their professional development. These teachers spoke of their mentor's ability to observe things, to ask the right questions, to get the teacher to really think about or realize

something. On the other hand, this is also the only characteristic that mentors were sometimes explicitly criticized for. A few teachers found their mentor unable to help them in their teaching practice or stimulate their professional development. Mentors were too general in their comments, not clear, or 'just not helpful'. One of these teachers said:

My mentor, he was a really kind man, but he was more like.. 'stand on the ship with two feet; you're the captain'. He says you stand there well, but what does that mean? That you literally stand well? That you have a good relationship with the students, that you prepare your lessons well, that you motivate your students, or that you are very strict? It all remained rather vague.

Overall

Besides the distinguishable elements and their variation, there are some general findings about induction programs as well. Not only is the use of induction programs the own initiative of schools, they are also developed by the schools themselves. Usually, one experienced teacher receives the responsibility for the organization of the induction program. In some schools these teachers get the opportunity to develop elaborate induction programs in which other experienced teachers participate in the realization of the induction program. In other schools, the teacher responsible for the organization of the induction program also remains solely responsible for its realization. As a consequence, these induction programs have limited content and intensity. The opportunity provided to the responsible teachers to develop an induction program depends on the school's leaders, but also on the responsible teacher. Some of these teachers are strongly motivated to develop an elaborate induction program and claim more resources to realize this, while other mentors just use the time they are given. Though schools themselves develop induction programs, they often use several out-of-school services, such as training for mentors provided at a teacher education institute, or a certain workshop for beginning teachers taught by a hired professional.

A scheme is presented in Table 2.3, providing an overview of what one can expect concretely from a typical low-intensity induction program and a typical high-intensity induction program. Although the degree of intensity is a good 'predictor' for the other characteristics, in practice induction programs can vary. Induction programs with the same degree of intensity may have different characteristics, and characteristics of induction programs with different kinds of intensities sometimes overlap.

Table 2.3 Characteristics of a low-intensity and a high-intensity induction program

	Low-intensity induction program	High-intensity induction program
Intensity	15-25 hours 1 year	60 hours 1 year, plus continuation in the second year if necessary
Facilities	One mentor responsible for the induction program Preparation course for mentors Limited dispensation for teachers: e.g., no obligation to be mentor of a class	Several mentors responsible for the induction program Preparation course for mentors Further professionalization courses for mentors Dispensation for teachers: no obligation to be mentor of a class; no obligation to supervise students during lunch break; no obligation to substitute for absent colleagues One part of a day per week is allocated for induction program-related activities Teachers receive a number of hours for activities related to the induction program (e.g., 25 hours)
Format	Introduction meeting (2 hours) Mentoring, including classroom visits (twice a year) Meetings for beginning teachers in which they can share their-experiences (4 times a year)	Introduction meeting (2 days) Mentoring, including classroom visits and video-taping of lessons (10-20 times a year) Meetings for beginning teachers, including informative presentations, specific training, and opportunity to share experiences (6 times a year) Beginning teachers observing colleagues' lessons Working visit to another school

Content	<p>Emotional support: helping the beginning teacher feel at ease, attention for stress-relief and stimulating self-confidence</p> <p>Practical information: explanation of school rules; introduction to important colleagues</p> <p>Professional development: helping beginning teachers overcome difficulties in classroom management</p>	<p>Emotional support: helping the beginning teacher feel at ease, attention for stress-relief and stimulating self-confidence</p> <p>Practical information: explanation of school rules; introduction of colleagues; notification of relevant upcoming data; preparation of parent-teacher meetings; explanation of computer system in use for calculating grades</p> <p>Professional development: thorough attention for classroom management, pedagogy, and the moral and psychological development of students</p>
Mentor	<p>High degree of trustworthiness</p> <p>Moderate degree of supportiveness</p> <p>Low degree of challenging teachers in their professional development</p>	<p>High degree of trustworthiness</p> <p>High degree of supportiveness</p> <p>High degree of challenging teachers in their professional development</p>

2.4.3 What mentors report on their role as mentor of beginning teachers

The third research question pertains to what mentors report of their ideas and actions concerning their role as mentor of beginning teachers. When asked about their role, we found that mentors mainly focused on guiding the professional development of beginning teachers. Analysis of the selected interview data revealed two interesting themes on which mentors differed: the first theme concerns how mentors tend to guide the professional development of beginning teachers (the mentoring approach), and the second theme concerns what mentors tend to focus on (the mentoring focus). These themes are described and illustrated using quotes from the interviews with mentors.

Mentoring approach

The twelve mentors who participated in our study differed in how they talked about their role. Still, they all shared a similar vision of how beginning teachers should be supported in their professional development. This vision entails that beginning teachers have to learn how to teach by practicing actual teaching and reflecting upon this practice. The role of the mentor here is to guide the reflection process of the beginning teacher.

In the data we found two assumptions underlying this vision. The first assumption is that 'there is no one right way of teaching'. Of course there has to be a learning environment conducive to work, but the way this is attained may differ per teacher. Instead of imposing 'the right way to teach', the goal of the mentor is to find, together with the beginning teacher, the way of teaching that suits the respective teacher best. Consequently, it is not a good idea for the beginning teacher simply to imitate a more experienced teacher. Merely imitating tricks might seem attractive, but if they are not genuinely the teacher's using these tricks does not feel comfortable or right to the teacher, nor is it convincing to the students. In this same line of reasoning, mentors are also not inclined to help beginning teachers by merely giving tips and advice to improve the teaching practice. As one of the mentors said about the role of mentor:

Stimulate him or her to find solutions. Don't give tips, but inspire them to search for 'What suits me?' ... Try different things until you know 'This is my way, this is what I have to do.' And don't just imitate the person next to you.

(Mentor in a moderate-intensity induction program)

The second assumption underlying the vision that mentors ought to mainly stimulate the reflection process instead of helping by giving advice, is that an induction program's ultimate goal is to educate teachers who continue the process of professionalization throughout their careers. After the induction period, teachers have to be able to look at themselves critically. They have to be able to understand causes and consequences of actions, to improve their practice, and, if necessary, be willing to ask for help. Advising beginning teachers might help them to learn to teach well, but would not lead to an ongoing process of professionalization. In order to achieve this latter goal it is important that teachers actually start practicing reflection during their induction period when the mentor is still there to guide the reflection process. By looking for solutions together, asking questions, and thinking together with the teachers, mentors attempt to teach teachers to look at themselves critically so that they can continue doing so once the mentor is no longer there. The following quotes of mentors illustrate this point of view:

If a teacher is not pleased with something, I suppose he would like to do something about it. It is my aim to help the beginning teacher become a little bit independent in this. So that eventually he can see for himself 'What is not going well, and what could I do about it? Why did it go this way?'

(Mentor in a low-intensity induction program)

I think that these meetings and workshops are meant to stimulate the reflection process, to provide a starting point, hoping that people will continue to reflect on their own.

(Mentor in a high-intensity induction program)

All mentors in our study thus believe that the role of the mentor is to stimulate beginning teachers' reflection processes, while avoiding too much input through giving tips or advice. When talking more concretely about how they actually guide beginning teachers, however, mentors appeared to differ in how far they went in stimulating the reflection process and avoiding giving tips and advice. This is shown in the following examples of quotes from mentors:

First I let them talk about their lesson, what they thought of it. How they feel about the lesson. But then, at a certain moment I give them my ideas about the lesson and tell them what I think should be improved. It is difficult for teachers to see what the problem is. It is one big mess.
(Mentor in a low-intensity induction program)

There are teachers of whom I think 'You want to start working with groups already, but you are not even capable yet of making contact with the students individually. How do you want to do this?'. But I do let it happen. Afterwards we analyze 'What is actually going on here?' This step is very essential to me. Because then, at a certain moment, they see it. In general they are very clever boys and girls.
(Mentor in a high-intensity induction program)

Though mentors agree that they ought to stimulate the reflection process of beginning teachers instead of giving advice, the above quotes show that mentors differ in the degree to which they do so. Some mentors tend to steer the beginning teacher in the right direction of thinking fairly soon, while other mentors are more inclined to follow the steps the beginning teacher chooses to take. They keep thinking along with the beginning teacher, asking questions and responding to what he or she thinks, but they have the time and confidence to avoid explicit correcting. They simply wait until the teacher him- or herself sees why something is going wrong and how to correct this.

Mentoring focus

The second theme on which mentors differed consists of the content of their support of the professional development of beginning teachers. In supporting their professional development, most mentors focused strongly on classroom management issues, such as how to get a student to listen to the teacher, how to start a lesson, or how to change from reviewing test results to working on a new subject without creating chaos. One mentor said:

The biggest problem that beginning teachers have is management control. Just problems with management. That is 80%. 'How do I get the students quiet? How do I deal with a bold student?', but also 'How do I deal with a difficult parent?', or problems within the subject department, such as 'I cannot finish the lesson material', 'I have an argument with a colleague'.
(Mentor in a low-intensity induction program)

For beginning teachers, management and organizational issues are often a basic obstacle. Being able to handle such issues is an important condition for teaching a classroom, and it is thus not surprising that these topics receive attention. Most mentors, however, stopped once they saw the teacher running the class smoothly, and felt that he or she could do it on his or her own and did not need the mentor's continuing support. For example, this is shown in the following quote about the intensity of the support that beginning teachers receive:

That differs greatly. When after a class visit you think 'This is running pretty smoothly', then the teacher can manage with group meetings from that point on. If not, you have to see the teacher more often.
(Mentor in a low-intensity induction program)

We labeled this kind of mentoring as teacher-centered mentoring. These mentors aim to help beginning teachers with their concerns, which most often revolve around 'surviving the classroom'. As soon as the beginning teachers can survive and feel fairly comfortable, they are left to continue on their own.

A few mentors spoke differently about supporting beginning teachers. These mentors spoke not so much about concerns of the beginning teachers, but about issues that are actually mainly of importance to the students. Instead of being focused on making sure that the beginning teachers were doing well and felt comfortable, these mentors were focused on making sure that the students learned well and felt well in doing so. This led to different topics in their support of the professional development of beginning teachers. Besides classroom management, mentors who were identified as having a student-centered focus paid more attention to pedagogy and the moral and psychological development of students than mentors with a teacher-centered focus. For example, two mentors expressed this as follows:

If two students do not stop talking with each other and disturb the lesson, you can say 'separate them' and perhaps your lesson will become nice and quiet again, but perhaps those students are still not doing anything and thus learning nothing.
(Mentor in a high-intensity induction program)

You can go stand on your head and make a joke. Then they will look at you again for a while, but the thing is that you have to motivate them for your subject. That they want to learn something about it.
(Mentor in a high-intensity induction program)

2.4.4 The induction program's influence on beginning teachers

The fourth research question referred to the induction program's influence on beginning teachers' teaching practices. Most teachers in our study considered the support of an induction program truly essential for their first year of teaching. They referred most strongly to the influence they felt on their emotional well-being. In the interview data we found various ways in which support from an induction program contributed to teachers' emotional well-being. Several teachers mentioned they gained self-confidence through group meetings in which they could hear about their colleagues' experiences, which were not all that successful either. Teachers felt welcomed and rewarded because of special attention, a welcome dinner or an introduction to the staff. Special meetings for beginning teachers helped them to get to know their colleagues and prevented them from feeling alone. Also, the support of a mentor, or even just knowing that there was someone who they could turn to for help, made teachers feel supported and not alone. The following two quotes of teachers illustrate the induction program's perceived influence on their well-being:

I started with 12 lessons and was sometimes too tired to cycle to the station, just physically exhausted. Those kinds of things she also kept an eye on. And when I said: 'I am dead', she said: 'That is not strange'. Then you can think 'Oh, maybe I am not crazy.' Because when you enter a school and you teach 12 hours and someone else teaches 27 hours and finds it a nice relaxing job, before you know it, you feel inferior and then you need someone to put things into perspective.

The induction program helps you to feel more secure. And also especially to not feel alone. Or that you know that you are not the only one who does not always know what he is doing and cannot figure out what to do about a certain situation. It makes you feel less insecure to know that others are also struggling with the same kinds of things. That is very good.

Remarkable was that, in spite of differences between induction programs, virtually all teachers who had received at least some support from an induction program confirmed that it had a positive influence on their well-being. The results did not show a relationship between the programs' intensity and the perceived influence on the teachers' well-being. The current study thus seems to indicate that an induction program is very important for the well-being of beginning teachers, but, at the same time, only limited intensity is required to realize this.

The induction program's value for teachers' professional development was expressed less strongly, though most teachers were able to report on things they had learned because of the induction program's support. Most often they mentioned how the mentor helped them to critically view themselves and gave them tips to improve their teaching practice. Because of feedback from their mentor or looking at themselves on a video-recording, teachers explained they

were able to see things they had not seen before or started to look at things from a different perspective. In the following quote one teacher explains how a mentor's support made him aware of causes and consequences in his interactions with students:

He videotaped a lesson. Afterward he would select a piece in which he saw something. You did this, and what was the reaction of the class; how could you change that?' And this, in very small steps, makes you aware that if you do something you evoke an immediate reaction. 'If I do this, then that will happen', that is what he made me very aware of.

The tips the teachers received were also mentioned rather often. These tips mainly referred to management and organizational issues. One of the teachers said:

It was great, all the things he saw. The tips he gave. Yes, they were very useful. For example, how to start a lesson: first you stand up, give a short signal, and you do not give in. Do not just say, 'People let's start', and then keep waiting. Your whole attitude has to show you are ready.

Most teachers considered that the added value of the induction program to their professional development was simply to have accelerated it. They learned the tricks that are essential to teach their lessons well quicker than they would have learned on their own. Without the support, they would have gotten there just as well though perhaps a little slower, as is illustrated by the following quote:

Without the support it would have taken me a little longer to make use of certain tricks. For example, walking past the tables backwards when handing out tests. This makes it possible to keep an eye on the persons who just received the test. It is something small that you would not think of yourself so easily, but eventually you would find it out for yourself. It would have taken a little longer, but it would not have been impossible.

In contrast to the above quote, some teachers experienced the induction program's support as truly leading to change. These teachers mostly referred to its influence on their way of reflecting upon their practice, as is shown in the following quote:

Yes, it certainly had an influence. I think that is clear. Because at first I was not really looking at myself at all. Not really. When things went well the students liked me and they got good grades, then all was probably well. But now, when I teach a lesson and the class did not really participate or they did not do well on a test, I think 'How I can do things differently next time?' When students used to get bad grades I would have thought 'The students did not study well'. It is easy to blame the students, but you also have to look at yourself.

Despite the reported learning experiences thanks to the induction program's support, it was remarkable to see how little the program was actually mentioned as an important component in learning how to teach. When the teachers were asked the open question of how one learns to teach, virtually no one explicitly referred to the support received from the induction program. Mostly they mentioned the will to teach, the talent that you either have or do not have, and, above all, the practice of actually teaching. Most teachers find that by teaching they can actually experience the things that go wrong and learn from this. Although support from an induction program is considered important, it is perhaps not felt to be a critical component in the process of learning to become a good teacher.

2.5 Conclusion and discussion

In the current exploratory study we aimed to gain insight into the current state of practice in the Netherlands with regard to the support of beginning teachers with an induction program. To this end, 12 mentors and 22 beginning teachers from 12 different schools were interviewed.

2.5.1 Elements of an induction program

First, we aimed to identify the various elements in which induction programs differ. Five main elements were distinguished, some of which were further subdivided.

The first main element that was distinguished is the induction program's intensity. The intensity consists of the number of hours that are planned for beginning teachers to spend on activities related to the induction program and the period of time during which beginning teachers are supported by the program.

The second main element consists of the facilities that are offered in order to realize the induction program. Facilities include the amount of time allocated for mentors to support and guide beginning teachers, time allocated for preparation and professionalization courses for mentors, time allocated for beginning teachers, dispensation from various tasks for beginning teachers, and synchronization of beginning teachers' time schedules in order to allow for group activities.

The third element is the format that is used to support beginning teachers. Several formats can be used in induction programs, including mentoring, group meetings, observing colleagues while teaching, and specific training.

The fourth element consists of the induction programs' content, referring to the topics that receive attention. Three topics were identified: emotional support, such as helping the beginning

teacher feel at ease, attention for stress-relief and self-confidence; practical information, such as explaining school rules, and notifying beginning teachers of meetings; and professional development, which refers to increasing knowledge and skills that are important for a successful teaching practice through: (1) attention for classroom management, leading students and creating a quiet and organized learning environment; (2) attention for pedagogy, creating a powerful learning environment in which students can develop skills and obtain the required knowledge; and (3) attention for the psychological and moral development of students, creating a safe learning environment, sustaining the social-emotional and moral development of students, and helping students become responsible persons.

The fifth element concerns the mentor. Based on the interviews with teachers, three important characteristics of the mentor were distinguished, namely: the mentor's trustworthiness, referring to his or her ability to create a base of trust that allows the teacher to feel safe and comfortable; the mentor's supportiveness, referring to the degree to which he or she stimulates and motivates the teacher in a positive way; and the mentor's degree of challenge, referring to the degree to which the mentor is able to challenge the beginning teacher in his or her professional development.

2.5.2 Induction programs in the Netherlands

Based on the elements distinguished, we then aimed to answer the second research question: 'How are beginning teachers in the Netherlands supported with an induction program?'

Though induction programs in the Netherlands are not mandatory, we found that many schools do use them to support beginning teachers. Most induction programs in our study were of a low intensity, including about 15 to 25 hours of support for beginning teachers, but we also found schools using induction programs with a moderately high to high intensity, including more than 50 hours of support for each teacher. However, quite frequently teachers received less support than was officially planned for. Sometimes the teachers received fewer hours because they were offered fewer hours than originally planned, but just as often the teachers themselves chose for less support. Remarkable was that in spite of the induction programs' variation in intensity, in general the teachers were happy with the amount of support they received. Teachers who received a great deal of support (high intensity) appreciated the positive impact of this, and teachers who received limited support (low intensity) were happy they had no further 'obligations' that would require extra time.

Whether or not schools offered facilities for mentors and teachers was closely related to the induction program's intensity. In low-intensity induction programs, often one mentor was solely responsible, while in high-intensity induction programs several mentors were generally responsible. In all induction programs beginning teachers received dispensation from several tasks, such as supervising students during lunch break or substituting for colleagues. In most

induction programs with a higher intensity the teachers also received a considerable number of hours intended for induction program-related activities.

Formats that were used in all induction programs were an introduction meeting, individual meetings between mentors and teachers, and group meetings in which beginning teachers could share their experiences. However, the exact content of these commonly used formats differed. For example, in one induction program the introduction meeting was limited to two hours in which beginning teachers were guided through the school and received information about the school rules, while in another program the meeting lasted two days. Besides a school tour and information about school rules, this introduction meeting also included considerable opportunity for the new teachers to meet each other, a workshop about 'how to start the first day at school', and a meeting with the staff. Formats that were used less often were specific training courses and classroom visits by the beginning teachers to enable them to observe and learn from colleagues. These formats were seen most often in the induction programs with a moderately high to high intensity.

Concerning the content of induction programs, we found that in most programs emotional support and practical information received more attention than did professional development. Especially in the induction programs with a low intensity, mentors tended to focus on welcoming the new teachers, making them feel at ease, and trying to include them in the school culture. Classroom management and organization usually received attention as well, but issues concerning the pedagogy and the moral and psychological development of students were not frequently mentioned as subjects that received attention.

With regard to the mentor's role, we found that teachers generally experienced a high degree of trust. Usually the roles of mentor and assessor were strictly separated: mentors supported beginning teachers and the school directorate was responsible for the assessment of teachers. Teachers often referred to this separation, which they experienced as an important condition for trusting their mentor. Many teachers also explicitly appreciated their mentor's supportiveness. The mentor's support, his or her positive attitude and interest, helped beginning teachers not to become stressed, to maintain their confidence and enthusiasm. The ability to challenge the beginning teacher is the only characteristic for which mentors were sometimes criticized. Several mentors were admired for their ability to observe things, ask the right questions, and stimulate reflection, but a few mentors received criticism for being vague or simply not helpful. In the interviews with teachers, the mentor's ability to challenge was spoken of less frequently and seemed less important to the teachers than the mentor's supportiveness.

2.5.3 The role of the mentor

The third research question pertained to the mentors' ideas and actions concerning their role in the induction program. Based on the interviews with mentors, two themes emerged in which mentors differed in their support of beginning teachers' professional development. The first concerns the mentoring approach and how mentors support professional development. Though all mentors shared a rather similar vision of how to support the professional development of beginning teachers, differences became apparent when they were asked more concretely about their approach. All mentors agreed that their role is to guide a beginning teacher's reflection process. A mentor ought to ask questions and reflect upon what the teacher thinks, but should avoid helping beginning teachers by merely giving advice. The first reason we found for this is that a teaching style is considered highly personal and not something to be imposed on the new teacher by a mentor: a beginning teacher should be allowed the space to develop his or her own teaching style. A second reason that was brought up is that an induction program's ultimate goal is to educate teachers who will continue to professionalize throughout their careers. Beginning teachers thus have to learn to look at themselves critically and learn how to change their practice and ask for help if necessary. In the induction period beginning teachers can practice this with the guidance of a mentor, but a mentor's merely giving advice would prevent the beginning teacher from having the opportunity to learn from his or her mistakes. Nevertheless, though mentors agreed that they ought to stimulate the reflection process by asking questions and avoid giving advice, it appeared that mentors differed in the degree to which they actually did so. Some mentors explained that they would first ask the beginning teacher what he or she thought about a certain situation, but would then give their own opinion. In spite of their initial ideas of their role as a mentor, they thus tended to help beginning teachers by giving advice. On the opposite end of the spectrum were mentors who explained they would try to reflect together with the beginning teacher without steering him or her. Even when a teacher would focus on something that, in the mentor's view, he or she was not yet ready for, these mentors encouraged the teacher to continue on this path until he or she would eventually 'get it'.

The second theme in which mentors differed in their support of beginning teachers' professional development concerns their focus. We distinguished a teacher-centered focus versus a student-centered focus. Most mentors tended to focus strongly on the concerns of the teacher. They aimed to help teachers with their problems, which often meant that as soon as the teacher could survive in the classroom and felt comfortable, he or she would receive no further individual support. This finding is in line with Little's (1990) conclusion that mentors often help beginning teachers feel comfortable but offer little professional support to foster a principled understanding of teaching. However, a few mentors were not so much focused on the teacher's concerns, but rather on those of the students, specifically whether they learned well and felt well doing so. This resulted in elaborate support and attention for the professional develop-

ment of beginning teachers; instead of focusing on classroom management, these mentors paid more attention to pedagogy and the students' moral and psychological development. The way mentors look at their role resonates with the concept of 'educative mentoring': mentoring that encourages new teachers to question their practice and to develop strategies to improve or refine it (Feiman-Nemser, 2001b). Mentors in our study found it important to contribute to the professional development of beginning teachers and believed it was best to do so by stimulating the reflection process. However, when speaking more concretely about how they supported beginning teachers' professional development, it seemed that the teaching practice was often less suited to the concept of educative mentoring. First, in spite of their ideas, mentors often tended to give advice and tips rather than encouraging new teachers to question their practice and develop strategies to improve or refine it. Second, though mentors stated that contributing to the professional development of beginning teachers is highly important, the extent to which they actually contributed to it was often limited to the topic of classroom management.

2.5.4 Experienced influence of induction programs

The fourth research question pertained to the induction program's influence on beginning teachers. Most teachers experienced a positive influence on both their well-being and their professional development, though the former more strongly so than the latter. Induction programs contributed to their well-being in several ways. First, induction programs contributed to teachers' socialization process in the school. Because of the introduction meetings, beginning teachers got to know each other from day one. Further group activities made the connection even stronger. By sharing experiences, attending each others' lessons, or working together, teachers established a strong bond with other beginning teachers. The contact with a mentor or mentors also contributed to the socialization process within the school and prevented feelings of isolation. Second, induction programs contributed to a teacher's sense of feeling appreciated. The fact that they received special attention with an induction program, sometimes even including a special welcome dinner or an introduction from the school leaders, made beginning teachers feel important and appreciated. Day, Sammons, Stobart, Kington, and Gu (2007) stress the importance of such an effect: it is of huge significance to teachers to be seen and to be appreciated by their directorate and colleagues. Third, induction programs contributed to teachers' confidence levels. Often mentors paid explicit attention to the things that beginning teachers were doing well. Compliments about their qualities contributed to the teachers' self-confidence. Also, teachers who had mentors who were able to put their struggles into perspective or tell of other beginning teachers who experienced similar difficulties, reported increased self-confidence.

In line with findings from several studies (e.g., Chubbuck, Clift, Allard, & Quinlan, 2001;

Helsel DeWert, Babinski, & Jones, 2003; Molner Kelley, 2004), we can conclude that induction programs are important for the well-being of beginning teachers. However, the results of the current study indicate that little is required of an induction program to realize such a positive influence. We did not find a relationship between the intensity of an induction program and its perceived influence on beginning teachers' sense of well-being. Regardless of intensity and content, virtually all beginning teachers supported by an induction program reported a positive influence on their well-being. Perhaps this is not strange; a simple introduction meeting in which beginning teachers meet each other and have the opportunity to get to know each other a little can lead to increased contact between teachers and thereby prevent isolation. Teachers who participate in a meeting for beginning teachers only once can already experience and report the relief of seeing that other beginning teachers struggle just as much. Also the knowledge that someone is there for you when you face a problem can in itself contribute to the feeling of being supported, and one class visit of a mentor and the confirmation that you are doing well can contribute to a beginning teacher's self-confidence.

Most teachers also experienced a positive influence of the induction program on their professional development, though less strongly than the influence on their well-being. The mirroring function was often mentioned: mentors helped beginning teachers to evaluate their own teaching practice. Certain questions or explicit comments from mentors made teachers aware of what was going well and what still needed improvement. Sometimes the mirroring function happened very literally, through videotaping of a teacher's lesson and having him or her review the recording; teachers experienced this as very informative. In relation to the induction program's influence on their professional development, beginning teachers also spoke of the tips their mentors gave them, such as tips on how to start a lesson properly, get students to do their homework, organize work. Though most teachers were able to give examples of situations in which the induction program had contributed to their professional development, this influence was mainly experienced as an acceleration of their professional development, rather than making a real difference. Only on rare occasions did teachers speak of the induction program as making a lasting difference to their professional development. Two teachers believed that because of the induction program's support they became better teachers. One teacher also explained how she really started looking at herself instead of only focusing on the students, for example, when they had not done well on a test.

Despite the examples of specific learning moments, when asked a general question about what were important influences on their way of teaching, virtually no teacher referred to the induction program's influence on 'how one learns to teach'. Most of them were of the opinion that one learns to teach because of the will to teach, a natural talent, and daily practice. However, teachers were happy with the acceleration of their professionalization thanks to the induction program and were generally satisfied with the support they had received.

2.5.5 Discussion

The general picture that arises from the findings of this study is that induction programs in the Netherlands typically seem to be centered around the (individual) teacher: most mentors focus strongly on teachers' concerns and find it extremely important to offer teachers the opportunity to develop their own teaching style. Support from an induction program mostly focuses on the teacher's questions, well-being, and personal development. This is markedly different from support by programs in, for example, France, Shanghai, and Japan, where induction is much more directive (Britton et al., 2003).

Induction programs in the Netherlands seem to focus on providing emotional support and practical information. Professional development receives only limited support, which concurs with the literature on induction programs' content in the USA (Feiman-Nemser, 2001a; Little, 1990; Wang and Odell, 2002). The results of the present study concerning the induction programs' influence on teachers are in line with these findings: in general, teachers experienced an important influence on their well-being and much less influence on their professional development. At the same time, they did not express disappointment in or dissatisfaction with the content of the induction program or its mostly limited effect on their professional development. Though teachers sometimes criticized components of the program, they were generally satisfied with the support and the extra attention they received. Partly this may be explained by low expectations on the part of the teachers, but even more so by the fact that induction programs are so strongly focused on the concerns and questions of the teachers: teachers do not miss the fact that no extra attention is paid to pedagogy or the moral and psychological development of students because this is not (yet) their concern.

It is not clear why most mentors in our study paid only limited attention to the concerns of students. While available time may be an important condition it is doubtful that more time would automatically lead to more attention for issues that matter especially to the students, since we did not find mentors expressing a wish for more time or complaining of a lack of opportunity to pay more attention to other subjects. Perhaps mentors are aware of students' concerns, but do not consider these an important factor for an induction program and therefore deliberately focus on teachers' concerns. Another possibility is that it is difficult for mentors to pay attention to the concerns of students. Fuller (1969) already described that, in general, beginning teachers are focused first on surviving in the classroom and only later start to focus on student learning. It seems that for mentors, as well as for beginning teachers, it is not easy to look beyond this first concern of survival. It is widely acknowledged that mentoring is not an easy job and requires serious preparation and professionalization (e.g., Athanases et al., 2008; Feiman-Nemser, 2001b; Orland, 2001). We would like to suggest that attention for students' concerns be made a core topic in the preparation and professionalization process of mentors.

Our finding that professional development receives only limited attention is in line with criticism expressed throughout the years that professional development receives too little attention (e.g., Feiman-Nemser, Schwille, Carver, & Yusko, 1998; Wang & Odell, 2002). Nevertheless, we see evidence of a positive development. Though the topics of mentoring and support for beginning teachers in induction programs have been discussed in the literature since the eighties, it took considerable time for them to become commonly used in schools. Most schools in this study have not been using induction programs very long, and some programs were still in development.

A limitation of the current study pertains to its rather small scale. An advantage of the method used is that we were able to go more into depth than would have been possible using a large-scale study. However, a disadvantage pertains to the external validity of the study. Though the current study provided further insight into the way beginning teachers in the Netherlands are supported with an induction program and revealed interesting information regarding the variations between induction programs and mentors, a large-scale study would be desirable to show whether the current conclusions would be confirmed.

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CHAPTER 3

The importance of induction programs to the well-being of beginning teachers^{*}

An important aim of induction programs is to increase beginning teachers' state of well-being and thereby prevent attrition. This chapter reports on a survey study in which we investigated how beginning teachers are supported with induction programs and how various characteristics of induction programs (facilities, format, intensity, content, and mentor characteristics) relate to their well-being. The results showed that virtually all beginning teachers who participated in the study had been supported by some form of induction program. Correlation analysis indicated that in order to sustain the well-being of beginning teachers with a formal induction program it is most important that the mentor is supportive. However, even more important for the well-being of beginning teachers than any characteristic of the formal induction program is the school culture: the collegiality and informal support experienced by beginning teachers.

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3.1 Introduction

A few decades ago, it might have been considered normal to introduce new teachers into a school with merely a word of welcome and perhaps some advice or tips, but those days are gone. Whereas Lortie (1975) described how beginning teachers were typically left to their own devices in solving their problems and overcoming the typical difficulties a first-year teacher encounters, in many countries we now believe that beginning teachers ought to be taken care of when entering a new school (Britton, Paine, Pimm, & Raizen, 2003). New teachers need the support of an induction program: a more or less formalized program that is aimed at supporting beginning teachers in their first years of teaching after their pre-service education (Beijaard, Buitink, & Kessels, 2010). This generally shared belief does not mean, however, that all new teachers nowadays receive well-organized support from an induction program. Often new teachers receive only limited support and sometimes even none at all (Darling-Hammond, Berry, Haselkorn, & Fideler, 1999), but there is nevertheless a significant difference compared to a few decades ago. There has been a considerable increase in the use of induction programs (Smith & Ingersoll, 2004), and many schools are still working to improve their induction practice.

Schools have several reasons to do so. First, though teachers may be well prepared by their pre-service education, they still have to learn a lot once they actually start to teach (Feiman-Nemser, 2001). To sustain this learning and thereby the quality of education, it is important to support the professional development of beginning teachers with an induction program. Second, investing in induction programs may reduce the high attrition rate amongst beginning teachers. Teacher shortages are a serious problem in many countries (Advies van de Commissie Leraren, 2007; Harris & Farrell, 2007; Ingersoll, 2001; Smithers & Robinson, 2003); they are partly caused by increased numbers of teachers reaching retirement age, but even more so by the large number of beginning teachers leaving the profession (Ingersoll, 2001). Schools attempt to increase the well-being of beginning teachers, and thereby prevent attrition, mainly by focusing their induction programs on the emotional support and socialization process within the school (Feiman-Nemser, Schulle, Carver, & Yusko, 1998; Wang & Odell, 2002). In the study on which we report here, we concentrated on this latter focus of induction programs. The central research question of this study was: 'What is the importance of induction programs to the well-being of beginning teachers?' It was our aim to contribute to the current insights regarding the importance of induction programs for beginning teachers' state of well-being and to establish what characteristics of an induction program are truly essential to promote this.

3.2 Theoretical framework

3.2.1 The well-being of beginning teachers

Unlike people in most other professions, teachers hardly get the opportunity to grow into the profession gradually. Beginning teachers usually have the same responsibilities and duties as senior teachers. They get a full schedule of teaching hours and the sole responsibility for teaching their lessons. Unlike senior teachers, however, they lack the routine that comes with experience. Many beginning teachers struggle with teaching issues, such as classroom management and student assessment, as well as students' personal problems, and meeting with their parents (Bullough, 1989; Odell, 1986; Veenman, 1984). Apart from these teaching issues, beginning teachers also have to socialize within the school. They have to become members of an organization, find their own place in the school, and gain the appreciation of their new colleagues. This is not always an easy process as beginning teachers often face resistance and sometimes skepticism from their senior colleagues (Kelchtermans & Ballet, 2002; Zeichner & Gore, 1990). The first years of teaching have a tremendous impact on the beginning teacher and often lead to feelings of low self-esteem, stress, and sometimes even burnout, with attrition as a possible consequence. To meet the psychological needs of beginning teachers, Gold (1996) stresses the importance of supporting them with an induction program that includes the necessary personal and emotional support.

Well-being generally refers to '*A state of being comfortable, healthy or happy*' (The New Oxford Dictionary of English, 1998). In research, well-being has been construed as a multi-dimensional concept including affective, cognitive, behavioral, psychosomatic, and professional dimensions (Van Horn, Taris, Schaufeli, & Schreurs, 2004; Ryff & Keyes, 1995; Warr, 1994). Usually, however, well-being is interpreted as a primarily affective state (Diener, et al., 1999), as it was in this study, too.

Engels, Aelterman, Van Petegem, and Schepens (2004) defined well-being as '*a positive emotional state that is the result of a harmony between the sum of specific context factors on the one hand and the personal needs and expectations towards the school on the other hand*' (p.128). (See also Van Petegem, Creemers, Rosseel, & Aelterman, 2006). In the current study we did not aim to include the whole spectrum of specific environmental factors. Though many variables may be of importance to beginning teachers' well-being, we aimed to determine specifically whether an induction program can contribute to it and, if so, what characteristics of an induction program are particularly relevant in accomplishing that. Based on a previous interview study, we distinguished three important aspects of beginning teachers' well-being on which an induction program might have a significant influence. These aspects are: (1) the beginning teachers' feelings of isolation, (2) the beginning teachers' feelings of appreciation by colleagues, and (3) the beginning teachers' feelings of self-confidence.

3.2.2 The influence of induction programs on the well-being of beginning teachers

A number of studies have shown that induction programs can contribute to (aspects of) the well-being of beginning teachers. For example, a study by Chubbuck, Clift, Allard, and Quinlan (2001) showed a positive influence of induction programs on reducing beginning teachers' feelings of isolation and on their willingness to explore different teaching styles. In an evaluation study, Molner Kelley (2004) reported on high retention rates and great satisfaction of beginning teachers regarding the support they received and their professional growth. Reiman, Alan, Bostick, and Dee (1995) also reported on satisfaction amongst beginning teachers concerning their induction program; most teachers agreed that they experienced the support from this program as encouraging, professionally rewarding, and valuable in their lives. Helsel, DeWert, Babinski, and Jones (2003) showed that an online support community can also contribute to the well-being of beginning teachers during their induction period. They reported on a positive effect on a number of variables related to well-being, such as confidence in teaching, reduced feelings of isolation, and enthusiasm for work.

It has thus been shown that induction programs are, generally speaking, relevant for beginning teachers' well-being. In addition, a number of studies have also shown positive effects of induction programs on the retention rate amongst beginning teachers (e.g., Odell & Ferraro, 1992; Scott, 1999; Smith & Ingersoll, 2004; Strong & St. John, 2001; Wilson, Darling-Hammond, & Berry, 2001), which is often the main reason for schools to want to contribute to the well-being of beginning teachers.

However, as Smith and Ingersoll (2004) remarked, most of the studies showing a positive influence of induction programs on the beginning teachers' state of well-being or retention rates are case studies based on the experiences of only a few teachers or evaluation studies focusing on one specific induction program. Comparisons between the effects of different kinds of induction programs (including situations in which no induction program is available) are limited, which makes it hard to define what characteristics of an induction program are particularly relevant for the results reported in the various studies, and whether it is indeed the induction program that is responsible for those results. This is especially the case because research has shown that other factors, such as the support from administrators, collegiality among teachers, and support in their professional development are also of importance to the well-being of beginning teachers (e.g., Rosenholtz, 1989; Van Petegem et al., 2006; Zabel & Zabel, 1982). Such factors may come into existence because of an induction program, but they may also be present without the use of a formal induction program. In research focusing on the influence of induction programs it is thus particularly relevant to take into account these workplace conditions that may also exist independently of an induction program.

3.2.3 Research aim

In the present study we aimed to contribute to the existing literature by providing further insight into the importance of specific characteristics of induction programs concerning the well-being of beginning teachers. For this purpose we conducted a survey study amongst beginning teachers, which provides the opportunity to compare the effects of induction programs with different characteristics. Also, items about the ways in which beginning teachers experienced their school culture and several personal variables were included, which enabled us to gain further insight into the relative importance of an induction program.

We aimed to answer the following research questions:

- 1 What is the degree of the state of well-being of beginning teachers?
- 2 How are beginning teachers in the Netherlands supported with an induction program?
- 3 How do characteristics of the induction program relate to the well-being of beginning teachers?

3.3 Method

3.3.1 Sample

The aim was to conduct a large-scale questionnaire study amongst beginning teachers in secondary education who had recently completed their induction period. In order to reach a large group of respondents, we used a multi-stage method to approach beginning teachers. Several teacher education institutes in different parts of the Netherlands were asked to send their former students an email in which they were invited to participate in our study. Five teacher education institutes cooperated, and in spring of 2007 approximately 1200 persons who had graduated at one of these institutes in 2004, 2005, or 2006, received an email asking them to participate in our study by filling out a questionnaire on the internet. Two weeks later these persons received a second email reminding them of the questionnaire.

In total, 316 persons completed the questionnaire, which is a 26% response rate. Because of the multi-stage method of approaching the respondents, we have little insight into the reasons for non-response. We do not know exactly how many persons actually received the email nor how many of them had actually started to work as teachers after their pre-service education. Of the respondents, 59% were female. All respondents had worked at least one year as a teacher in secondary education, and some of the participants had already taught for more than four

years.³ Dutch secondary education is for students from 12 to 18 years of age. Table 3.1 presents an overview of the respondents' ages, their years of experience, and the subject-matter they were teaching.

Table 3.1 Descriptions of the respondents (N = 316)

Mean Age	32,4 years (SD = 8.5)	
Gender	Female	59%
	Male	41%
Teaching experience	1 year	31%
	2 to 4 years	55%
	More than 4 years	14%
Subject matter	Language and Arts	35%
	Science and Mathematics	31%
	Social Studies	34%

Important to note is that the use of induction programs is not mandatory in the Netherlands. Schools decide themselves whether and how to use an induction program to support beginning teachers.

3.3.2 The questionnaire

The questionnaire consisted of several scales, measuring a number of variables. This study was part of a survey-study in which it was also investigated how induction programs influence the professional development of beginning teachers. Table 3.2 provides an overview of the variables which were relevant in this study.

3 This is possible because the respondents could have earned a teaching qualification previously (usually a second-degree qualification, necessary for teaching in lower levels of secondary education), after which they continued to study for a higher degree (a first-degree qualification, necessary for teaching in higher levels of secondary education), or for a teaching degree in another subject. Also, schools occasionally hire teachers who have not yet completed their studies.

Table 3.2 Measured variables

Independent Variables		Dependent Variables
Induction Program		Well-being of the Beginning Teacher
Facilities		Experienced Isolation
Format		Experienced Appreciation
Intensity		Confidence in own Teaching Skills
Content	Emotional Support	
	Practical Information	
	Prof. Development, Pedagogy	
	Prof. Development, Classroom Management	
	Prof. Development, Psychological and Moral Development of Students	
Characteristics of the Mentor	Challenging	
	Supportive	
	Trustworthy	
School Culture		
Personal and Contextual Factors		

Based on our prior interview study (see Chapter 2), we distinguished five main elements in which induction programs differed. These five elements consisted of *Facilities*, *Format*, *Intensity*, *Content*, and *Characteristics of the Mentor*. Respondents were asked about their experiences of an induction program. Questions about the various elements of an induction program were answered retrospectively, based upon the teacher's experiences in his or her first year of teaching. The first element about which teachers were asked was *Facilities*. This refers to the resources available to the teachers and mentors involved in the induction program, for example, the time allocated for induction activities for beginning teachers and mentors, training for mentors, dispensation from particular duties such as monitoring students for the beginning teachers, and the availability of a place where induction activities take place. In the questionnaire we only included questions referring to facilities for the beginning teachers since we did not expect the participants to know anything about the facilities available to the mentors. The scale we used to measure facilities consisted of statements about possible facilities; the respondents could indicate whether these facilities were indeed present or not.

Format refers to the forms of support used in induction programs, such as an introduction meeting, class visits by a mentor, or group meetings with beginning teachers.

Intensity refers to the amount of time spent on the various forms of support. In the questionnaire we combined questions about format and intensity by asking the respondents to indicate how much time was spent on a particular form of support, or how often they participated in a particular form of support. The scale also included one item to provide participants with the

opportunity to indicate whether they had received 'other forms of support'. The intensity of the various forms of support could be indicated on multiple choice scales. For example, the respondents were asked, '*How often did you participate in group meetings with beginning teachers?*', to which they could answer: (a) *never*; (b) *1-2 times*; (c) *3-6 times*; (d) *more than 6 times*.

In the analysis, we were able to use these data in various ways. We were able to consider the presence of a certain format, independent of the intensity. We were able to consider the general intensity of the induction program, and where it was deemed useful we distinguished between the intensity of individual support (including mentoring and class observations by the beginning teacher) and the intensity of group support (including introduction meetings and meetings for beginning teachers).

With regard to *Content*, we identified three main topics that we knew from our interview study receive attention in induction programs, namely:

- 1 *Emotional Support*, such as helping the beginning teacher feel at ease, attention for stress-relief, and stimulating self-confidence.
- 2 *Practical Information*, such as explaining school rules, showing how to operate the equipment, and notifying beginning teachers of meetings.
- 3 *Professional Development*, the purpose of which is to increase knowledge and skills that are important for good teaching. We considered three important topics, namely: (a) attention for *Classroom Management*, referring to the teacher's ability to lead students and to create a quiet and organized learning environment, (b) attention for *Pedagogy*, referring to the ability to create a powerful learning environment in which students can develop skills and obtain the required knowledge, and (c) attention for the *Psychological and Moral Development of Students*, referring to the teacher's ability to create a safe learning environment, sustain the social-emotional and moral development of students, and help students become responsible persons.

The respondents were asked to indicate the degree of attention paid to emotional support and practical information on a four-point Likert scale, and to the various subjects related to professional development on a five-point Likert scale. With regard to the various subjects related to professional development, respondents had the possibility to answer '*irrelevant*' because we noted in our prior interview study that respondents sometimes hesitated in their answers when a particular topic was certainly touched upon in the induction program but received less attention because the respondent had already mastered it.

The fifth element, *Mentor*, was subdivided into the following mentor characteristics:

- 1 The *Trustworthiness* of the mentor, referring to his or her ability to create a base of trust with which the teacher feels safe and comfortable.
- 2 The *Supportiveness* of the mentor, referring to the degree to which he or she stimulates and motivates the teacher in a positive way.
- 3 The *Degree of Challenge*, referring to the degree to which the mentor is able to challenge the beginning teacher in his or her professional development.

Since teachers sometimes had two mentors, or even more, the respondents were asked to base their answers on their experiences with the mentor they valued the most. The scale used to measure the characteristics of the mentor consisted of statements to which the respondents could indicate their degree of agreement on a five-point Likert scale. If the respondent had not been supported by a mentor, he or she could answer '*irrelevant*'.

In addition to the scales developed to investigate how the respondents had been supported formally with an induction program, we also included a scale for School Culture and items about various Personal and Contextual characteristics. Using the School Culture scale, we measured the degree of collegiality and informal support experienced by the respondents. This scale consisted of statements to which the respondents could indicate their degree of agreement on a five-point Likert scale.

Questions about Personal and Contextual characteristics related to previous experience in teaching as a student teacher and as a certified teacher, the subject department and level of education in which the respondent taught, the number of colleagues in the same subject department, the number of hours the respondent taught in the first year of teaching, the respondent's age and gender, and the degree of preparedness the respondent experienced when starting to teach. Items about Personal and Contextual characteristics did not belong to a scale and were treated independently.

Well-being of beginning teachers

The dependent variable in this study was the well-being of beginning teachers. Because we were specifically interested in the well-being of beginning teachers in relation to induction programs, the scale measuring well-being was strongly based on the results of the previous interview study. Based on this study we distinguished three aspects of well-being on which induction programs (may) have an influence. These aspects are: experienced lack of isolation within the school, experienced appreciation by colleagues, and confidence in own teaching skills. The scale for well-being consisted of 12 items referring to these aspects of well-being. We did not include items about matters that may be relevant to the well-being of beginning teachers but are by definition independent of the presence of an induction program, such as satisfaction with their salary. The scale consisted of statements about a positive or negative well-being to which the respondents could indicate their degree of agreement on a five-point Likert scale ranging from -2 to 2.

Table 3.3 contains examples of items of the measured characteristics of an induction program, the School Culture, and the well-being of beginning teachers. See Appendix 3 for the complete questionnaire.

Table 3.3 Examples of items of the questionnaire

Measured Variable	Example Item
Well-being, Isolation	(In my first year of teaching) 'I felt alone'
Well-being, Appreciation	(In my first year of teaching) 'I felt taken seriously by my senior colleagues'
Well-being, Confidence	(In my first year of teaching) 'I was satisfied with my teaching practice'
Facilities	'Beginning teachers receive extra time for induction activities'
Format, Intensity*	'How often did you participate in meetings for beginning teachers?'
Content Professional Development, Pedagogy	'Assessing what students understand during a lesson'
Content Professional Development, Classroom Management	'Dealing with a bold student'
Content Professional Development, Psychological and Moral Development of Students	'Dealing with students' insecurities'
Content Emotional Support	'There was attention for personal issues' (In the induction program)
Content Practical Information	'Explanation was provided about school rules' (In the induction program)
Mentor, Challenging	'My mentor challenged me to improve myself'
Mentor, Supportive	'My mentor often told me what I did well'
Mentor, Trustworthy	'I felt at ease with my mentor'
School Culture	'I could always ask my colleagues about everything'

* Though Intensity and Format are two separate variables, they were measured using one scale by continually combining the variables in one statement.

Finally, the questionnaire also included a number of evaluation items in which respondents were asked about their opinions on the induction program they had been supported by and their opinions on the importance of an induction program.

3.3.3 Piloting the questionnaire

Originally, the questionnaire consisted of 220 items. These items were tested in a think-out-loud session to investigate how they were interpreted by people in our target group. Four beginning teachers participated in this pilot study. Based on this first pilot study we rewrote several items to enable a better understanding by the respondents. The second version of the questionnaire still consisted of 220 items and was filled out by 51 student teachers. Based on this pilot study we were able to create reliable and smaller scales. The third version of the questionnaire was completed by eight student teachers to investigate the amount of time that was necessary to complete the questionnaire and to make some final improvements in the ordering of the items. The final version of the questionnaire consisted of 99 items and took about 15 minutes to complete.

3.3.4 Analysis

We analyzed the data in a quantitative manner, using SPSS, version 14.0.

The first step in the analysis included: (a) inverting negative items, (b) investigating missing data, and (c) imputing missing data if permitted by the type of data and if relevant for further analysis.

The second step of the analysis consisted of a reliability and factor analysis to investigate the underlying structure in the questionnaire. We checked whether our scales were indeed reliable, but also whether the scales we created could be improved by deleting items.

The third step of the analysis was aimed at answering the various research questions. This step consisted of: (a) descriptive and frequency analysis in order to describe the data, and (b) factor, correlation, and stepwise regression analyses in order to provide insight into relations between the measured variables.

3.4 Results

We first present the results of the reliability analysis and the correlation coefficients between the scales, which form an indication of the quality of the questionnaire. This is followed by the descriptive results concerning the well-being of the respondents and the support they received from an induction program. Finally, we present the results regarding the relationship between the various elements of induction programs and the well-being of beginning teachers.

3.4.1 Quality of the questionnaire

An important indicator for the quality of a questionnaire consists of the inter-item reliability scores of the scales in the questionnaire. Based on factor and reliability analysis, we deleted several items in a number of scales. Table 3.4 shows the number of items we finally used for each scale, along with the Cronbach's Alpha of the scales. We did not calculate the Cronbach's Alpha for the scale measuring Format and Intensity and for the Personal Characteristics scale because these scales consist of items that are independent of each other and were not expected to correlate with each other.

Table 3.4 Reliability coefficients of the scales of the questionnaire

Variables		Number of items	Cronbach's Alpha
Induction Program			
Facilities		7	.80
Format and Intensity		8	-
Content	PD Pedagogy	4	.83
	PD Classroom Management	4	.86
	PD Psych./Moral Development	4	.83
	Emotional Support	4	.81
	Practical Information	4	.80
Mentor	Challenging	4	.84
	Supportive	4	.89
	Trustworthy	4	.67
School Culture		7	.75
Personal Characteristics		10	-
Well-being of the Beginning Teacher		12	.92

Table 3.4 shows that all scales have a Cronbach's Alpha of at least .67. Most scales even have a Cronbach's Alpha higher than .80. This means that for our kind of analyses (at the group level), the inter-item reliability of all scales is sufficient.

Table 3.5 shows the correlation coefficients between the scales measuring the elements of induction programs and the scale measuring School Culture.

The high inter-item correlations, shown in Table 3.4, are an indicator of the questionnaire's good quality. Table 3.5, however, shows that the correlations between the scales are also high, which is especially the case for three of the subscales of Content, namely: Pedagogy, Classroom Management and Psychological and Moral Development of Students (all belonging to the

category Professional Development). High correlations between the scales is generally less desirable since it indicates that the scales overlap with one other and do not simply measure the intended variable. In this study, however, it is not strange that the variables relate to each other, sometimes even strongly. The scales measure different elements of induction programs and one can imagine that, for example, the more time that is spent on activities within an induction program, the more attention there is for issues concerning Classroom Management or Pedagogy, resulting in a relatively high correlation between the scales. In spite of some of the high correlations between the scales, we decided to keep them separated in subsequent analyses because they still made sufficient individual contributions. The correlations between scales, in fact, do not exceed the Cronbach's Alpha values of the particular scales, as can be seen when the correlations between the scales are compared with the Cronbach's Alpha scores, presented in Table 3.4.

3.4.2 The well-being of beginning teachers

Figure 3.1 shows the distribution of the reported well-being experienced by the respondents in their first year of teaching.

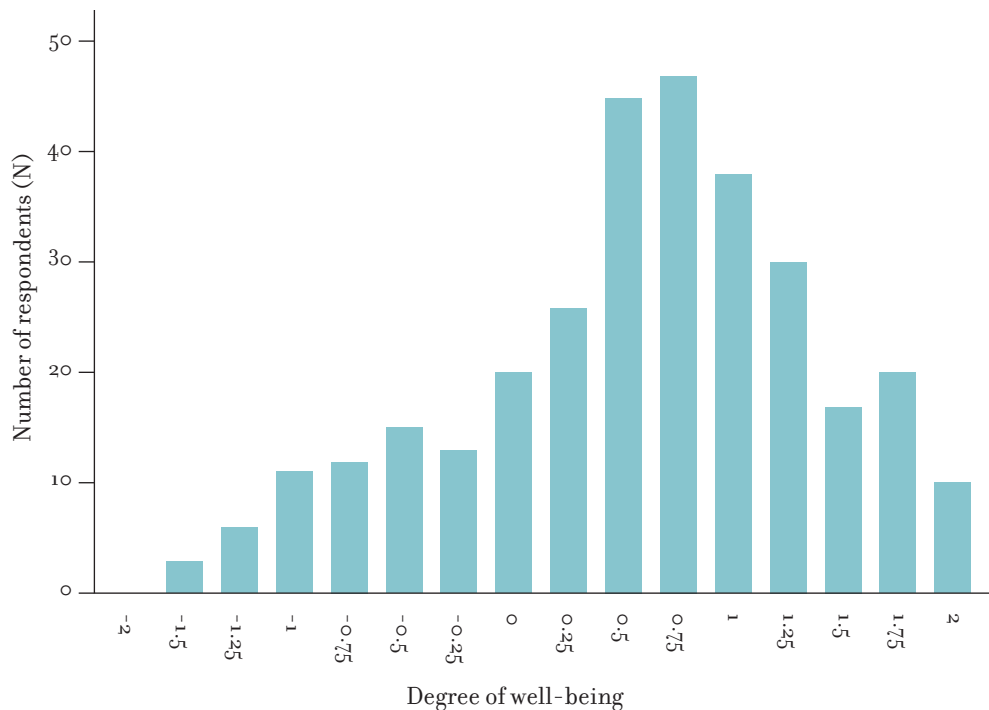


Figure 3.1 Degree of well-being of respondents in their first year of teaching

Table 3.5 Correlations between elements of induction programs and School Culture

	Facilities	Intensity Individual	Intensity Group	Profess. Development Pedagogy
Facilities		.46*	.50*	.42*
Intensity Individual	.46*		.45*	.46*
Intensity Group	.50*	.45*		.28*
PD Pedagogy	.42*	.46*	.28*	
PD Classroom management	.46*	.46*	.36*	.67*
PD Psych./ Moral development stud.	.45*	.36*	.30*	.57*
Emotional Support	.54*	.40*	.44*	.35*
Practical Information	.46*	.37*	.25*	.33*
Mentor Challenging	.41*	.44*	.35*	.41*
Mentor Supportive	.47*	.38*	.31*	.34*
Mentor Trustworthy	.22*	.11	.14*	.19*
School Culture	.29*	.15*	.24*	.19*

* p < .01

Content				Mentor			
Profess. Development Classroom management	Profess. Development Psych./Moral development students	Emotional Support	Practical Information	Mentor Challenging	Mentor Supportive	Mentor Trust- worthy	School Culture
.46*	.45*	.54*	.46*	.41*	.47*	.22*	.29*
.46*	.36*	.40*	.37*	.44*	.38*	.11	.15*
.36*	.30*	.44*	.25*	.35*	.31*	.14*	.24*
.67*	.57*	.35*	.33*	.41*	.34*	.19*	.19*
	.60*	.43*	.35*	.44*	.33*	.17*	.14
.60*		.40*	.37*	.30*	.32*	.19*	.23*
.43*	.40*		.53*	.51*	.65*	.33*	.38*
.35*	.37*	.53*		.34*	.48*	.25*	.33*
.44*	.30*	.51*	.34*		.52*	.28*	.23*
.33*	.32*	.65*	.48*	.52*		.50*	.45*
.17*	.19*	.33*	.25*	.28*	.50*		.30*
.14	.23*	.38*	.33*	.23*	.45*	.30*	

In Figure 3.1, the first thing to be noted is that a large majority has an average score higher than zero, namely 79% of the respondents. A score higher than zero indicates a positive well-being. The average score of well-being is 0.6, with men scoring slightly higher than women: men had an average score of 0.7 and women had an average score of 0.5. The difference between these scores is small, but still significant ($T(309) = 2.60, p = .01$).

As is explained in the section describing the study's method, the scale measuring Well-being consists of items referring to: (a) Experienced Lack of Isolation, (b) Experienced Appreciation, and (c) Confidence in own Teaching Skills. When a difference is drawn between these subscales, it appears that the respondents scored most positively on the items concerning the experienced Lack of Isolation and the Experienced Appreciation. Both subscales have an average score of 0.9, which indicates that the respondents felt comfortable in their workplace. They did not feel isolated or lost, and felt appreciated by the school and their colleagues. The average score on the subscale Confidence in own Teaching Skills was 0.1, which is clearly a lower score, but still not a negative score.

The results show a rather positive picture of the well-being of beginning teachers, but it is important to realize that 21% of the respondents still reported a negative sense of well-being.

3.4.3 The extent to which beginning teachers are supported by an induction program

One of the five elements of an induction program is the Format, referring to the forms of support that are used in an induction program. Table 3.6 presents the percentages of respondents to whom various forms of support used in induction programs were made available.

Table 3.6 Percentage of respondents receiving the various forms of support

Introduction meeting	79%
Group meeting with beginning teachers	64%
Individual conversation with mentor from the same subject department	74%
Individual conversation with mentor from a different subject department	62%
Class visit by a mentor, including evaluation	90%
Class visit by a mentor, including videotaping of the lesson and evaluation	52%
The beginning teacher observing lessons of colleagues	65%
Other forms (e.g. training)	16%

Table 3.6 shows that many respondents were provided with a variety of forms of support. A format used particularly often is that of individual support from a mentor, through individual conversations with or without class visits from him or her. Introduction meetings were also

attended by almost 80% of the respondents. Important to note, however, is that these percentages only indicate *that* the respondent received the indicated form of support. The amount of time spent on the indicated form of support may vary considerably.

A second element of induction programs is the program's Intensity. The scale measuring Intensity consisted of eight items concerning the various forms of support. The respondents indicated the experienced intensity for each form of support on a multiple-choice ranking scale, consisting of four possible answers. Per item the respondents thus indicated a score ranging from 1 to 4. Adding the scores of all items resulted in a total score ranging from 8 to 32. In order to describe the intensity, we divided the total scores of Intensity into five categories. The first category refers to 'no support at all' (a total score of 8); the remaining total scores were divided equally over categories two to five. The categories thus ought to be read as ordered scores with the first category referring to no support at all and the last category referring to a very high intensity of about 80 hours of support or even more. Figure 3.2 shows the frequency scores of the five categories of Intensity.

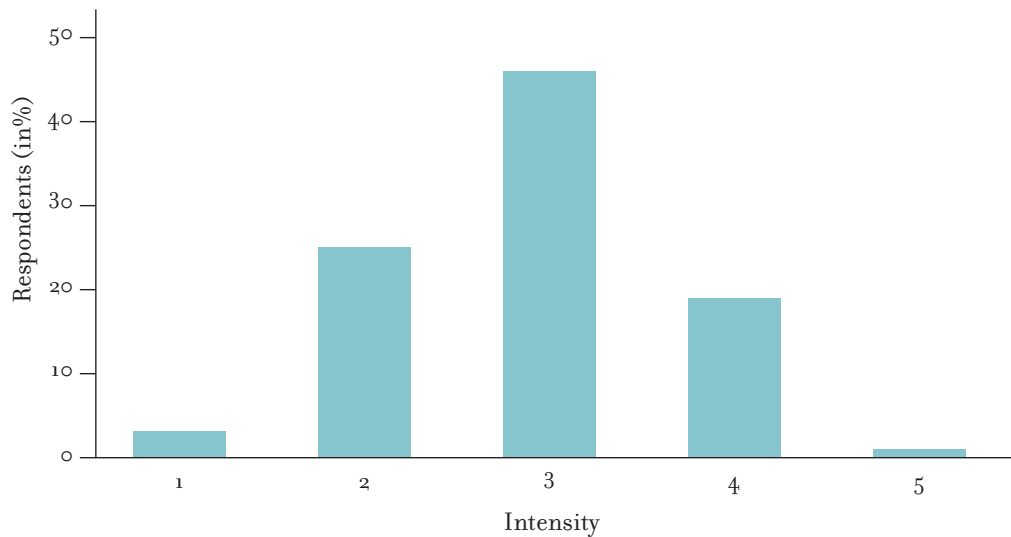


Figure 3. 2 Frequency distribution of the intensity of induction programs (N = 316)

As can be seen in Figure 3.2, virtually all of the respondents (97%) participated in at least some form of an induction program, but there is quite some variation in the intensity of the induction programs. Most of the respondents indicated a category-three intensity. This category refers to a total score ranging between 15 and 20. Even within this category the intensity of the induction programs varies, but for example a program in this category can consist of:

- an introduction meeting of half a day;
- five meetings with beginning teachers in which they can share their experiences;
- five class visits by a mentor, including evaluation afterward;
- four class observations of a colleague by the beginning teacher;
- a training course consisting of three hours.

Table 3.7 shows the descriptive information of the Facilities provided, the Content of the induction program, and characteristics of the Mentor. (In this Table, the raw scores indicating the degree of attention for Emotional Support and Practical Information, measured on a four-point Likert scale, were transformed to a five-point Likert scale.)

Table 3.7 Descriptives of Facilities, Content, and Mentor Characteristics

		Mean	SD	Min	Max
Facilities (1-4)		2.5	.68	1	4
Content	PD Pedagogy (1-5)	2.5	.94	1	5
	PD Classroom Management (1-5)	2.9	.99	1	5
	PD Psych./Moral Development (1-5)	2.1	.84	1	5
	Emotional Support (1-5)	3.1	1.2	1	5
	Practical Information (1-5)	2.6	1.2	1	5
Mentor	Challenging (1-5)	3.4	.94	1	5
	Supportive (1-5)	3.7	.99	1	5
	Trustworthy (1-5)	3.8	.79	1	5

Table 3.7 shows that, on average, respondents indicated a score of 2.5 for Facilities provided, such as extra time and dispensation from several duties. An average score of 2.5 means that teachers generally receive some facilities, but that this is certainly an area of possible improvement. For example, about half of the respondents reported that they did not receive extra time for activities related to the induction program. Also, about half of the respondents did not receive any dispensation from extra tasks such as monitoring students.

Concerning the induction programs' Content, all of the subjects included in the questionnaire receive attention. Most attention is given to Emotional Support and Classroom Management. On average, these topics receive attention 'rather often'. The Psychological and Moral Development of Students receives the least attention, only 'sometimes'.

The scores on the characteristics distinguished in the Mentor are high, especially when it comes to the mentor's Supportiveness and the degree to which he or she is able to be Trustworthy. On average, the teachers thus felt greatly at ease with their formal mentor and felt supported by him or her, but, again, the standard deviation values are relatively high, which indicates a great variety in the experiences of beginning teachers.

Table 3.5 already showed that the various elements of induction programs correlated relatively strongly. To further investigate whether these correlations represent a certain structure, we conducted a factor analysis including the various elements of induction programs and School Culture. The results of this analysis are presented in Table 3.8.

Table 3.8 Factor analysis on elements of induction programs

	Factor 1	Factor 2
Facilities	.61	.41
Intensity Individual Support	<u>.68</u>	.18
Intensity Group Support	.54	.27
PD Pedagogy	<u>.79</u>	.09
PD Classroom Management	<u>.84</u>	.11
PD Psychological and Moral Development of Students	<u>.73</u>	.09
Emotional Support	.43	<u>.68</u>
Practical Information	.38	.54
Mentor Challenging	.50	.44
Mentor Supporting	.28	<u>.81</u>
Mentor Trustworthy	.01	<u>.69</u>
School Culture	.09	<u>.70</u>

* Loadings having a value of at least .65 are underlined.

The factor analysis revealed two underlying components. The scales measuring the attention for Professional Development and the Intensity of Individual Support, in particular, load strongly on the first factor, while the scales measuring Emotional Support, the mentor's Supportiveness and Trustworthiness, and School Culture, in particular, load strongly on the second factor. As regards the content of the scales loading on the two components, it can be interpreted that the first component refers to a dimension in the support related to Professional Development and the second component to a dimension related to Emotional Care. It is remarkable that the Intensity of the induction program, especially the intensity of Individual Support, loads only lightly on the second factor (related to Emotional Care). Also noteworthy is the strong loading of School Culture on this factor. This result indicates a relationship between School Culture, which refers to the informal support and collegiality experienced by the respondents, and the specific elements in the formal support of an induction program. This relationship is also recognizable in Table 3.5, in which can be seen that School Culture correlates significantly with several elements of induction programs.

3.4.4 Relationship between elements of induction programs and the well-being of beginning teachers

In order to answer the third research question (How do characteristics of the induction program relate to the well-being of beginning teachers?), we used correlation and regression analysis. Table 3.9 shows the results of the correlation coefficients between the elements of an induction program and the well-being of beginning teachers. The correlation coefficient between School Culture and well-being is also included in this Table.

Table 3.9. Correlations between well-being and elements of an induction program, and School Culture

		Well-being
Induction Program		
Facilities		.34*
Intensity Individual Support		.10
Intensity Group Support		.24*
Content	PD Pedagogy	.18*
	PD Classroom Management	.09
	PD Psych./Moral Development	.29*
	Emotional Support	.34*
	Practical Information	.26*
Mentor	Challenging	.18*
	Supportive	.42*
	Trustworthy	.33*
School Culture		.60*

* $p < .01$

The results presented in Table 3.9 show that most elements of an induction program correlate positively with the well-being of beginning teachers. This is especially the case for the Mentor's Supportiveness and Trustworthiness, attention for Emotional Support, and Facilities. As can be seen in Table 3.8, three of the four elements that relate strongly to well-being also load strongly on the second factor, referring to a dimension in the support of beginning teachers related to Emotional Care. One can also see that the elements correlating only moderately with well-being load mainly on the first factor, which refers to a dimension of support relating to the Professional Development of beginning teachers. Though many of the elements of an induction program distinguished correlate positively with well-being, the correlation between School Culture and well-being is stronger than any of the other correlations with well-being. This indicates that a supportive school culture is more important for the well-being of beginning

teachers than any of the characteristics of an induction program. The average score on the five-point Likert scale measuring School Culture is 3.9, indicating that the respondents generally experience a supportive school culture amongst colleagues.

Table 3.10 shows the model that best predicts well-being, based on a regression analysis in which the elements of an induction program were included, as well as School Culture and the various Personal and Contextual Characteristics.

Table 3.10 Regression analysis on Well-being

	R	Beta	Sig
School Culture	.58	.43	.00
Mentor, Supportive	.62	.19	.00
Personal Characteristic Preparedness	.64	.16	.00

Again, the importance of School Culture is demonstrated. The model, explaining 41% of the variance in beginning teachers' well-being, includes the variables School Culture, Supportiveness of the Mentor, and Preparedness (referring to the degree to which the beginning teacher felt prepared when starting to teach). School Culture is by far the most important predictor, explaining much more variance than the other predictors. Of the elements of induction programs only the Supportiveness of the mentor is included in the model. Though several other elements of the induction program also correlate strongly with the well-being of beginning teachers, they do not have a sufficient independent predictive value to be included in the model. Other personal characteristics besides 'The degree to which the respondents felt prepared when starting to teach' (such as age, gender, and the number of hours worked) also did not have sufficient independent predictive value to be included in the model.

3.5 Conclusion and discussion

With the aim of answering our research questions pertaining to the well-being of beginning teachers and the support they receive from induction programs, we conducted a survey study amongst teachers who recently graduated from pre-service teacher education. Because respondents had different experiences with induction programs, we were able to gain insight into the relative importance of various characteristics of induction programs regarding beginning teachers' well-being.

3.5.1 The degree of well-being of beginning teachers

The first research question referred to the well-being of beginning teachers. We investigated the degree of well-being amongst beginning teachers based upon the respondents' reports on their well-being in their first year of teaching. The scores on the scale measuring well-being indicated that, on average, the respondents experienced positive well-being. Considering the difficulty of the first year of teaching and the reported struggles of many beginning teachers (e.g., Gold, 1996; Odell, 1986; Veenman, 1984), we regard this as a positive result. Nevertheless, we have to be cautious with this conclusion for a number of reasons. Twenty-one percent of the respondents still indicated negative well-being. Also, there is a risk that the respondents, as a consequence of a slightly biased memory, indicated a more positive well-being than they actually experienced. However, based upon the current results we conclude that well-being amongst beginning teachers is, in general, moderately positive.

3.5.2 How teachers in the Netherlands are being supported with an induction program

The second research question pertained to the way beginning teachers are supported with an induction program. Virtually all teachers who participated in this study (97%) had been supported with an induction program. On average the induction programs had a moderate intensity. Often, the induction programs included an introduction meeting, contact with a mentor, and class visits from a mentor. Meetings in which beginning teachers could share their experiences and consult each other were often included in the induction program as well, but markedly less often than individual meetings with mentors or an introduction meeting. Most teachers reported that they were provided with limited facilities, most of them did not receive extra time for activities related to the induction program, and most had no dispensation from teaching duties. Most respondents reported positively about their mentors. All subjects included in the questionnaire received attention, though the focus was on emotional support and classroom management. Since the use of induction programs in the Netherlands is not mandatory, we can conclude that many schools apparently see good reasons to invest in the support of beginning teachers. The widespread use of induction programs in the Netherlands corresponds with the general picture that the use of induction programs is gaining popularity in many countries and is still increasing (Britton et al., 2003).

3.5.3 The relationship between elements of an induction program and the well-being of beginning teachers

The third research question referred to the relationship between the support from an induction program and the state of well-being of beginning teachers. To investigate this relationship, we used a schema of elements and sub-elements of an induction program based on our prior interview study, described in Chapter 2. The five main elements we distinguished were *Facilities, Format, Intensity, Content, and Characteristics of the Mentor*. In the analysis of the data, we investigated the correlations between the distinguishable elements and the well-being of beginning teachers. Except for two sub-elements of the induction program, namely, individual support (sub-element of format) and attention for classroom management (sub-element of content), all of the investigated elements correlated significantly and positively with the well-being of beginning teachers, though some only slightly.

The elements correlating most strongly with well-being were the supportiveness of the mentor, attention for emotional support, facilities, and the degree to which the mentor is trustworthy. Three of these elements were also the elements loading most strongly on the second factor, revealed by a factor analysis including the elements of induction programs and the school culture. This factor was interpreted as related to the emotional care of beginning teachers. The intensity of the induction program, especially the intensity of individual support, the degree of attention for professional development, and the degree to which the mentor is able to challenge beginning teachers in their professional development, had a low correlation with well-being. These elements typically loaded strongly on the first factor, which was interpreted as the support related to the professional development of beginning teachers.

3.5.4 Discussion

The results of our study indicate that induction programs can contribute to the well-being of beginning teachers. In order to contribute to their well-being with an induction program, it is most important that the mentor is supportive: that he or she shows confidence in the beginning teacher and can motivate him or her. Also important are the attention for emotional support and a trusting relationship between mentor and mentee. In other words, it is important that a mentor shows interest in the personal well-being of a beginning teacher, can be confided in, and is able to make the beginning teacher feel at ease. An element that has been shown to be important as well, but in many cases can still be improved, is that of the facilities offered in relation to the induction program, for example, arranging for the schedules of beginning teachers to match with induction program activities, assigning mentors to beginning teachers, and allowing beginning teachers dispensation from several duties.

A number of characteristics of induction programs appeared to be of little importance to beginning teachers' well-being. One of these characteristics pertained to the intensity of the induction program, especially the intensity of the individual support. This result concurs with the results of our previous interview study. Apparently it is of more importance for a beginning teacher to know that there is a person to support him or her, than that a certain length of time be spent with a mentor. Also, the attention for professional development and the degree to which the mentor is able to challenge beginning teachers appeared of little importance to beginning teachers' well-being. Though one might think that support aimed at professional development contributes to teaching skills and, therefore, also to the well-being of beginning teachers, the results of this study indicate otherwise. This might be due to the fact that attention for professional development also confronts teachers with their flaws, though we did not find evidence of a negative impact of attention for professional development on beginning teachers' well-being.

Besides emphasizing the importance of an induction program for beginning teachers' well-being, the findings of this study also reveal the importance of a supportive school culture, a culture in which beginning teachers feel supported by their administrators, can ask their colleagues for help, feel a bond with their colleagues, and are appreciated by them as well. The school culture experienced by beginning teachers correlated even more strongly with well-being than any of the characteristics of an induction program. Though this seems to put the importance of an induction program into perspective, the present findings also show that school culture correlates with several characteristics of an induction program. This makes us wonder about the nature of the relationship between an induction program and the school culture: do schools with a supportive school culture tend to invest more in an induction program than schools with a less supportive school culture? Is it the other way around, and does an induction program contribute to a more supportive school culture? Or do the correlations found between characteristics of an induction program and school culture represent a more dynamic relationship? We do not have an answer yet, but insight into the nature of this relationship could emphasize even more the importance of either a supportive induction program or a supportive school culture.

At this moment, we interpret the current results as a confirmation of the importance of a supportive mentor and a supportive environment. This is in correspondence with the findings of several other studies; for example, Tellez (1992) showed that most beginning teachers sought help from their official mentor only if he or she was friendly and could be confided in; otherwise, the teachers sought help from more experienced teachers who were caring, friendly, and not overly critical. Tickle (2000) and Kelchtermans and Ballet (2002) also emphasized the importance of a positive attitude towards beginning teachers. They stress that, all too often, beginning teachers are considered incapable and receive too little appreciation.

3.5.5 Limitations of the study

We would first like to stress that in our study of induction programs we focused on the well-being of beginning teachers. Our conclusions regarding the importance of several induction program elements thus only apply when the well-being of beginning teachers is considered the aim of using an induction program. Though well-being can be considered an important aim for using an induction program, clearly for the teachers personally but also for the prevention of attrition and as a precondition for professional development (Gold & Roth, 1993; Ward, 1987), we do not wish to claim that well-being is the only important aim in using an induction program.

Second, since the questionnaire was sent to graduates of several teacher education institutes, we can assume that the group of teachers who received the questionnaire is representative of most teachers in the Netherlands who are supported with an induction program. The sample of teachers who received the questionnaire was randomly spread over a large number of different schools. However, we consider it possible that, of the group of teachers who received the questionnaire, the teachers who had not been supported with an induction program were less inclined to complete it. If so, the result that 97% of the respondents received support from an induction program would show a too-positive view of the use of induction programs. Nevertheless, we consider the result that such a large percentage of participants had received some form of an induction program as a confirmation that the use of induction programs is increasingly widespread, also in the Netherlands.

Third, with the results of our study and analyses we can say something about correlations, but, strictly speaking, not about the causality behind these correlations. Yet, we interpret the correlations found between elements of induction programs and the beginning teachers' well-being as causal; that is to say that an induction program contributes to a higher sense of well-being in beginning teachers. We exclude the possibility that a higher sense of well-being contributes to an induction program, since theoretically this seems highly unlikely. However, a risk in our opinion is that the well-being experienced by beginning teachers influences the way teachers remember the support they received. A very positive experience might also create a slightly too-positive memory of the support received in the first year of teaching, and vice versa. This would create correlations that are not representative of the reality. For now, however, we conclude that the current study confirms a positive influence of induction programs on the well-being of beginning teachers. Especially important for an induction program to contribute to the well-being of beginning teachers is the supportiveness of the mentor, attention for emotional support, facilities provided to enable support from an induction program, and a trusting relationship between mentor and teacher.

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CHAPTER 4

Supporting beginning teachers' professional development with an induction program: When does a program make a difference?*

Many schools worldwide use induction programs to support beginning teachers' professional development. However, it has been shown that a positive influence of induction programs on beginning teachers' professional development is not self-evident. Based on a survey study, this chapter reports on how beginning teachers in the Netherlands experience the influence of induction programs on their professional development and how this relates to the various elements of induction programs. The results indicate that teachers generally experience little to moderate influence of the induction program on their professional development. The findings show that the influence teachers experience on their professional development strongly depends on the characteristics of the induction program, indicating that induction programs can contribute greatly to beginning teachers' professional development, but often fail to do so because the programs lack essential characteristics. Various elements of induction programs appeared to be important, some of which have been implemented successfully in most induction programs. Important points of improvement are the organization of the induction program and the types of facilities that are offered; the capacity of mentors to challenge beginning teachers in their professional development; and the degree to which attention is paid to topics related to professional development, mainly pedagogy.

* This chapter has been submitted in adapted form as: Kessels, C., Beijaard, D., van Veen, K., & Verloop, N. Supporting beginning teachers' professional development with an induction program: When does a program make a difference?
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4.1 Introduction

The first year of teaching is often experienced as overwhelming and intense, but for many teachers it is mainly a difficult year, sometimes even described as traumatic (Veenman, 1984). To help beginning teachers in these first years of teaching, many schools nowadays use an induction program: a more or less formalized program that is aimed at supporting beginning teachers in their first years of teaching after their pre-service education (Beijaard, Buitink, & Kessels, 2010). An important reason to invest in induction programs is to sustain the professional development of beginning teachers: not only to help them survive those first years of teaching, but also to challenge them in their development as teachers and provide an impetus for continuous growth (Cole, 1994).

From the early 1990s on, scholars have emphasized the importance of supporting beginning teachers with an induction program (Darling Hammond, 1995; Feiman-Nemser & Parker, 1992; Huling-Austin, 1992). Now that many schools use an induction program, the question that is heard more and more often is whether these programs lead to the desired outcomes. Do beginning teachers find the first year of teaching less traumatic? Do they more often decide to stay in the profession, and do they become better teachers? In the current study, we aimed to contribute to the existing insights into the influence of induction programs on the professional development of beginning teachers. Research on this topic has revealed a differentiated picture. Though a positive influence on professional development is possible, this is certainly not guaranteed. A limitation in most studies is the lack of comparison between different kinds of induction programs. Many studies investigating the influence of induction programs are case studies based on the experiences of only a few teachers or evaluation studies focused on one specific induction program (Smith & Ingersoll, 2004). Therefore, we conducted a survey study amongst beginning teachers who were supported in different ways. This enabled us to relate outcomes to specific characteristics of induction programs. The central research question was: 'How do induction programs influence the professional development of beginning teachers?' Insight into what elements of an induction program are essential in order to contribute to the professional development of beginning teachers provides a theoretical framework for induction programs and can help improve induction practices.

4.2 Theoretical framework

4.2.1 Beginning teachers' professional development

In pre-service education, student teachers can gain critical knowledge, develop a vision on 'good teaching,' and learn several teaching skills. After pre-service education, however, when teachers actually start teaching, a very important phase of their learning is only just beginning.

This is when teachers can gain the most essential knowledge and skills that are necessary to become a good teacher (Feiman-Nemser, 2001a). Gaining such knowledge and skills, however, is not self-evident. Many teachers consider experience to be the most important source of their learning, but several authors have pointed out the pitfalls of learning how to teach based exclusively on teaching experience (Feiman-Nemser & Buchmann, 1987; Johnston, 1994; Zeichner, 1990). Guidance is often essential to help beginning teachers to learn from their experiences: to interpret and reflect critically upon experiences, and to act upon an interpretation. When beginning teachers do not receive such guidance, they are prone to develop as 'survivors': teachers who learn by trial and error what strategies more or less work, but without understanding why they work or how they could work better (Lortie, 1975).

Nowadays, it is widely believed that it is important to sustain beginning teachers' professional development with an induction program (Britton, Paine, Pimm, & Raizen, 2003). The induction period is of great influence on what kind of teacher one will become (Gold, 1996), and the kind of teacher one will become is most decisive for the quality of one's teaching (Darling-Hammond & McLaughlin, 1999). By offering activities that include modeling, critical reflection, literally looking back at one's actions, and providing teachers with theoretical background knowledge, induction programs are expected to prevent teachers from developing as survivors. Instead, induction programs are expected to strongly influence the professional development of the beginning teachers and to help them develop as 'adaptive experts'. An adaptive expert teacher can use a variety of classroom techniques effectively and efficiently as they are routines, but he or she also knows the theory behind these techniques and is able to adapt these when appropriate (Hammerness et al., 2005).

4.2.2 Induction programs' influence on beginning teachers' professional development

Britton et al. (2003) found that comprehensive induction programs often consist of (combinations of) the following characteristics: (1) close contact with a mentor who is often a more experienced teacher; (2) group meetings for beginning teachers which allow new teachers to interact, cooperate, and solve problems within a safe environment; (3) reflecting on, inquiring after, and researching one's own teaching practice and that of others; (4) observation of other teachers and being observed, and; (5) good timing and sequencing of learning opportunities. However, the content of induction programs is often rather limited (Darling-Hammond, Berry, Haselkorn, & Fideler, 1999). Though the difference with a few decades ago is considerable and the increase in the use of induction programs is significant (Smith & Ingersoll, 2004), Feiman-Nemser (2001a) states that most induction programs do not rest on an understanding of teacher learning, a vision of good teaching, or a broad view on the role that an induction program can play in new teachers' development. Also, Wang and Odell (2002) conclude in their

review study that the content of the support from an induction program is often limited to technical and emotional support. In spite of the current belief that it is important to support beginning teachers with an induction program, teachers thus often do not receive such well-organized support.

A number of studies was focused on the influence of induction programs. Several small-scale studies showed that induction programs may have positive effects on the professional development of beginning teachers (Athanasēs & Achinstein, 2003; Achinstein & Barrett, 2004; Feiman-Nemser, 2001b; Napper-Owen & Philips, 1995; Norman & Feiman-Nemser, 2005). These studies showed how beginning teachers reframed their thinking on several teaching issues, changed their instruction method, were able to redirect their attention to individual students, and gained more awareness of the students' thinking and understanding. However, these studies also showed challenges and limitations, such as the skills of a mentor and the time available for support, which may limit positive effects. Indeed, Carver and Katz (2004) showed how a mentor was not able to really contribute to three beginning teachers' professional development; they attributed this to a combination of factors, including the competences of the mentor, the attitude of the beginning teachers, and the lack of assessment procedures. Also, Strong and Baron (2004) showed a very limited impact of support from an induction program. Based on analysis of 30 hours of conversation between mentors and teachers, they identified 10 instances of direct suggestions from the mentor, which evoked an elaborate response from the teacher only three times. A few large-scale studies were also conducted to investigate the effects of induction programs on the professional development of beginning teachers. One large-scale study showing positive influences of induction programs on professional development was conducted by Luft and Cox (2001). Based on a survey study amongst beginning science and mathematics teachers, they found that beginning teachers were overwhelmingly positive about the value of the guidance they received from their mentors while learning to teach science and mathematics. They found that the teachers who had more lessons observed by mentors valued their induction program more. Two recent large-scale studies also included student achievement in the investigation of the effect of induction programs on the professional development. Strong, Villar, and Fletcher (2008) investigated how variation in induction programs was related to student achievement, and concluded that intensive mentor-based induction for which mentor selectivity is high, can have a positive effect on student achievement.

A large-scale experimental study conducted by Glazerman et al. (2008), however, did not show any relation between different induction programs and student achievement. In this study, differences in a number of variables between teachers supported by a comprehensive induction program and teachers supported by an induction program with limited content were investigated. In relation to teachers' professional development, no differences were found in teachers' classroom practices and student achievement (Glazerman et al., 2008). In short, the

literature shows a differentiated picture of the effects of induction programs on the professional development of beginning teachers (see also the review study by Wang, Odell, & Schwille 2008).

4.2.3 Research aim

The findings of a number of studies have demonstrated that positive influences of an induction program on professional development are possible, but we still have little insight into the elements of induction programs that are essential to contribute to beginning teachers' professional development. Also, hardly any large-scale studies have encompassed a considerable variety of induction programs, enabling better generalization of the conclusions. With our study we aimed to contribute to the existing literature by conducting a large-scale survey study in which we investigated how beginning teachers experience the influence of induction programs on their professional development and how this relates to the various elements of induction programs. Based on self-reporting of the teachers we aimed to answer the following research questions:

- 1 How do beginning teachers experience the influence of an induction program on their professional development?
- 2 How can differences in experienced influence of the induction program on professional development be explained?
- 3 What are the characteristics of induction programs that teachers experience as influential on their professional development?

4.3 Method

This study was part of a survey study in which it was also investigated how induction programs influence the well-being of beginning teachers. This topic is reported on in Chapter 3 of this thesis. Information about the method of the study is also described in this chapter.

4.3.1 Sample

The aim was to conduct a large-scale questionnaire study amongst beginning teachers in secondary education who had recently completed their induction period. In order to reach a large group of respondents, we used a multi-stage method to approach beginning teachers. Several teacher education institutes in different parts of the Netherlands were asked to send their

former students an email in which they were invited to participate in our study. Five teacher education institutes cooperated, and in spring of 2007 approximately 1200 persons who had graduated at one of these institutes in 2004, 2005, or 2006, received an email asking them to participate in our study by filling out a questionnaire on the internet. Two weeks later these persons received a second email reminding them of the questionnaire.

In total, 316 persons completed the questionnaire, which is a 26% response rate. Because of the multi-stage method of approaching the respondents, we have little insight into the reasons for non-response. We do not know exactly how many persons actually received the email nor how many of them had actually started to work as teachers after their pre-service education. Of the respondents, 59% were female. All respondents had worked at least one year as a teacher in secondary education, and some of the participants had already taught for more than four years.¹

Dutch secondary education is for students from 12 to 18 years of age. Table 3.1 (page 62) presents an overview of the respondents' ages, their years of experience, and the subject-matter they were teaching.

Important to note is that the use of induction programs is not mandatory in the Netherlands. Schools decide themselves whether and how to use an induction program to support beginning teachers.

4.3.2 The questionnaire

The questionnaire consisted of several scales, measuring a number of variables. Table 4.1 provides an overview of the variables which were relevant in this study.

Based on our prior interview study (see Chapter 2), we distinguished five main elements in which induction programs differed. These five elements consisted of *Facilities*, *Format*, *Intensity*, *Content*, and *Characteristics of the Mentor*. Respondents were asked about their experiences of an induction program. Questions about the various elements of an induction program were answered retrospectively, based upon the teacher's experiences in his or her first year of teaching.

¹ This is possible because the respondents could have earned a teaching qualification previously (usually a second-degree qualification, necessary for teaching in lower levels of secondary education), after which they continued to study for a higher degree (a first-degree qualification, necessary for teaching in higher levels of secondary education), or for a teaching degree in another subject. Also, schools occasionally hire teachers who have not finished their degree yet.

Table 4.1 Measured variables

Independent Variables		Dependent Variable
Induction Program		Professional Development
Facilities		
Format		
Intensity		
Content	Prof. Development, Pedagogy	
	Prof. Development, Classroom Management	
	Prof. Development, Psychological and Moral Development of Students	
	Emotional Support	
	Practical Information	
Characteristics of the Mentor		
		Challenging
		Supportive
		Trustworthy
School Culture		
Personal and Contextual Factors		

The first element about which teachers were asked was *Facilities*. This refers to the resources available to the teachers and mentors involved in the induction program, for example, the time allocated for induction activities for beginning teachers and mentors, training for mentors, dispensation from particular duties, such as monitoring of students, for the beginning teachers, and the availability of a place where induction activities take place. In the questionnaire we only included questions referring to facilities for the beginning teachers since we did not expect the participants to know anything about the facilities available to the mentors.

The scale we used to measure facilities consisted of statements about possible facilities: the respondents could indicate whether these facilities were indeed present or not.

Format refers to the forms of support used in induction programs, such as an introduction meeting, class visits by a mentor, or group meetings with beginning teachers.

Intensity refers to the amount of time spent on the various forms of support. In the questionnaire we combined questions about format and intensity by asking the respondents to indicate how much time was spent on a particular form of support, or how often they participated in a particular form of support. The scale also included one item to provide participants with the opportunity to indicate whether they had received 'other forms of support'. The intensity of the various forms of support could be indicated on multiple choice scales. For example, the respondents were asked, '*How often did you participate in group meetings with beginning teachers?*', to which they could answer: (a) *never*; (b) *1-2 times*; (c) *3-6 times*; (d) *more than 6 times*.

In the analysis, we were able to use these data in various ways. We were able to consider the

presence of a certain format, independent of the intensity. We were able to consider the general intensity of the induction program, and, where it was deemed useful, we distinguished between the intensity of individual support (including mentoring and class observations by the beginning teacher) and the intensity of group support (including introduction meetings and meetings for beginning teachers).

With regard to *Content*, we identified three main topics that we knew from our interview study receive attention in induction programs, namely:

- 1 *Emotional Support*, such as helping the beginning teacher feel at ease, attention for stress-relief, and stimulating self-confidence.
- 2 *Practical Information*, such as explaining school rules, showing how to operate equipment, and notifying beginning teachers of meetings.
- 3 *Professional development*, the purpose of which is to increase knowledge and skills that are important for good teaching. We considered three important topics, namely: (a) attention for *Classroom Management*, referring to the teacher's ability to lead students and to create a quiet and organized learning environment, (b) attention for *Pedagogy*, referring to the ability to create a powerful learning environment in which students can develop skills and obtain the required knowledge, and (c) attention for the *Psychological and Moral Development of Students*, referring to the teacher's ability to create a safe learning environment, sustain the social-emotional and moral development of students, and help students become responsible persons.

The respondents were asked to indicate the degree of attention paid to emotional support and practical information on a four-point Likert scale, and to the various subjects related to professional development on a five-point Likert scale. With regard to the various subjects related to professional development, respondents had the possibility to answer 'irrelevant' because we noted in our prior interview study that respondents sometimes hesitated in their answers when a particular topic was certainly touched upon in the induction program but received less attention because the respondent had already mastered it.

The fifth element, *Mentor*, was subdivided into:

- 1 The *Trustworthiness* of the mentor, referring to his or her ability to create a base of trust with which the teacher feels safe and comfortable.
- 2 The *Supportiveness* of the mentor, referring to the degree to which he or she stimulates and motivates the teacher in a positive way.
- 3 The *Degree of Challenge*, referring to the degree to which the mentor is able to challenge the beginning teacher in his or her professional development.

Since teachers sometimes had two mentors or even more, the respondents were asked to base their answers on their experiences with the mentor they valued the most. The scale used to measure characteristics of the mentor consisted of statements to which the respondents could indicate their degree of agreement on a five-point Likert scale. If the respondent had not been supported by a mentor, he or she could answer 'irrelevant'.

In addition to the scales developed to investigate how the respondents had been supported formally with an induction program, we also included a scale for School Culture and items about various Personal and Contextual characteristics. Using the School Culture scale, we measured the degree of collegiality and informal support experienced by the respondents. This scale consisted of statements to which the respondents could indicate their degree of agreement on a five-point Likert scale.

Questions about Personal and Contextual characteristics related to previous experience in teaching as a student teacher and as a certified teacher, the subject department and level of education in which the respondent taught, the number of colleagues in the same subject department, the number of hours the respondent taught in the first year of teaching, the respondent's age and gender, and the degree of preparedness he or she experienced when starting to teach. Items about Personal and Contextual characteristics did not belong to a scale and were treated independently.

Teachers' professional development

To investigate the effect of induction programs on professional development, beginning teachers were asked about their personal experiences with an induction program. The scale used to measure the experienced influence on professional development consisted of items about the experienced influence on professionalization in: classroom management, pedagogy, and the moral and psychological development of students. Also two items asking about the influence of the induction program on professional development in general were included. The scale consisted of positively formulated statements about the influence of the induction program.

Respondents indicated their degree of agreement with these statements on a five-point Likert scale. The average score on the scale was calculated for each respondent. A score of 2.0 or less indicates that the respondent did not experience a positive influence of the induction program on his or her professional development. A score between 2.0 and 4.0 indicates that the respondent experienced a small to moderate influence of the induction program on his or her professional development, and a score of 4.0 or more indicates that the respondent experienced a strong influence of the induction program on his or her professional development. In spite of the different areas of development within the scale, factor analysis revealed that one factor underlying the scale and reliability analysis showed a high Cronbach's Alpha of .93.

Table 4.2 contains examples of items of the measured characteristics of an induction program, the School Culture, and the professional development of beginning teachers. See Appendix 3 for the complete questionnaire.

Table 4.2 Examples of items of the questionnaire

Measured Variable	Sample Item
Professional development, Pedagogy	(Because of the induction program) 'I was better able to help students understand the subject matter'
Professional Development, Classroom Management	(Because of the induction program) 'I learned to keep better order in the classroom'
Professional Development, Psychological and Moral Development Students	(Because of the induction program) 'I learned to deal with sensitivities of students better'
Professional Development, General	(Because of the induction program) 'I was better able to reflect critically'
Facilities	'Beginning teachers receive extra time for induction activities'
Format, Intensity*	'How often did you participate in meetings for beginning teachers?'
Content Professional Development, Pedagogy	'Assessing what students understand during a lesson'
Content Professional Development, Classroom Management	'Dealing with a bold student'
Content Professional Development, Psychological and Moral Development of Students	'Dealing with students' insecurities'
Content Emotional Support	'There was attention for personal issues' (In the induction program)
Content Practical Information	'Explanation was provided about school rules' (In the induction program)
Mentor, Challenging	'My mentor challenged me to improve myself'
Mentor, Supportive	'My mentor often told me what I did well'
Mentor, Trustworthy	'I felt at ease with my mentor'
School Culture	'I could always ask my colleagues about everything'

* Though Intensity and Format are two separate variables, they were measured with one scale by continually combining the variables in one statement.

Finally, the questionnaire also included a number of evaluation items in which respondents were asked about their opinion on the induction program they had been supported by and their opinion on the importance of an induction program.

4.3.3 Piloting the questionnaire

Originally, the questionnaire consisted of 220 items. These items were tested in a think-out-loud session to investigate how they were interpreted by people in our target group. Four beginning teachers participated in this pilot study. Based on this first pilot study we rewrote several items to enable better understanding by the respondents. The second version of the questionnaire still consisted of 220 items and was filled out by 51 student teachers. Based on this pilot study we were able to create reliable and smaller scales. The third version of the questionnaire was completed by eight student teachers to investigate the amount of time that was necessary to complete the questionnaire and to make some final improvements in the ordering of the items. The final version of the questionnaire consisted of 99 items and took about 15 minutes to complete.

4.3.4 Analysis

We analyzed the data in a quantitative manner, using SPSS, version 14.0.

The first step in the analysis included: (a) inverting negative items, (b) investigating missing data, and (c) imputing missing data if permitted by the kind of data and if relevant for further analysis.

The second step of the analysis consisted of a reliability and factor analysis to investigate the underlying structure of the questionnaire. We checked whether the scales were reliable, and also whether they could be improved by deleting items.

The third step of the analysis was aimed at answering the various research questions.

Descriptive and frequency analysis were used to answer the first research question pertaining to the perceived influence of induction programs on beginning teachers' professional development. Correlation and stepwise regression analyses were used to provide insight into relations between the various elements of induction programs and the influence of these induction programs experienced by teachers on their professional development. In conclusion, Z-scores, and descriptive and frequency analyses were used to provide insight into the characteristics of induction programs that are experienced as (strongly) influential on the professional development of beginning teachers.

4.4 Results

In this section, we first present the results concerning the first research question referring to the influence of the induction program experienced by teachers on their professional development. We then present the results of the analysis of the relationship between elements of induction programs and the perceived influence on professional development; last, we present the results relating to the third research question pertaining to the characteristics of induction programs that teachers experience as influential on their professional development.

Information about the reliability of the total questionnaire – except for the scale used to measure the experienced influence on professional development – was reported in Chapter 3.

4.4.1 Experienced influence of an induction program on professional development

Most respondents believed that support from an induction program is important for the professional development of beginning teachers: 80% of the respondents agreed with the general statement 'With an induction program, one becomes a better teacher' and 79% of the respondents disagreed with the statement 'Without the support of an induction program, one learns just as much as with the support of an induction program'. However, when the respondents were asked about their personal experience of the influence of an induction program, a somewhat different picture emerged.

Figure 4.1 illustrates the distribution of the average scores of the respondents on the scale measuring the influence on professional development, rounded off to half decimals. The mean score in Figure 4.1 is 3.0, which indicates that the respondents, on average, experienced some influence of the induction program on their professional development.

Sixteen percent of the respondents had a score of 2.0 or less, indicating they experienced no positive influence of the induction program on their professional development. The majority, 70% of the respondents, had a score between 2.0 and 4.0; thus, they experienced a small to moderate influence of the induction program on their professional development. A group of 14% of the respondents had a score of 4.0 or more; they experienced a strong influence of the induction program on their professional development.

One part of the questionnaire consisted of evaluation items including several statements about the induction program. Fifty-six percent of the respondents agreed with the general statement that they had received good support from an induction program. So while only 14% of the respondents experienced a positive to very positive influence of the induction program on their professional development, most respondents were satisfied with the support they received.

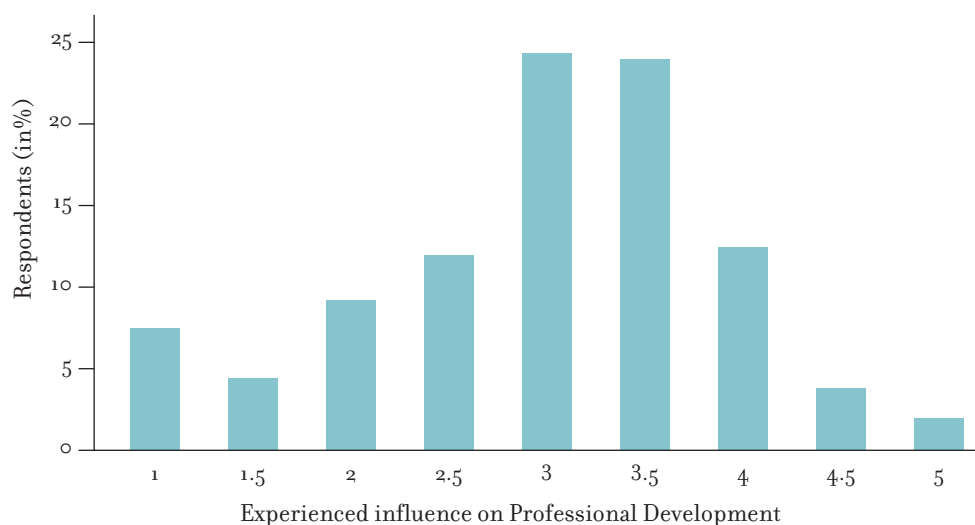


Figure 4.1 Experienced influence on Professional Development

The mean scores on the various items in the scale measuring the influence on professional development varied only a little, yet some of the differences were significant. Most positive were the answers to items asking about the experienced influence on professional development in general. When respondents were asked more specifically about the influence they experienced, the scores were significantly lower ($T(316) = 8.42, p = .00$). With respect to the specific areas, the respondents experienced the most influence on their professionalization in classroom management. Significantly less influence was experienced on professionalization in the moral and psychological development of students ($T(316) = 7.00, p = .00$), which was again closely (and not significantly) followed by the experienced influence on professionalization in pedagogy.

4.4.2 Explanation of differences in experienced influence on professional development

To investigate how differences in experienced influence of the induction program on professional development can be explained, we performed correlation and regression analysis. In the correlation analysis School Culture and Personal and Contextual variables were also included. The results of both analyses are presented in Table 4.3 and Table 4.4.

Table 4.3 Correlations of characteristics of induction programs and professional development

Induction Program		Professional Development
Facilities		.48*
Intensity Individual Support		.41*
Intensity Group Support		.29*
Content	Emotional Support	.46*
	Practical Information	.40*
	Professional Development	.50*
	PD Pedagogy	.45*
	PD Classroom Management	.43*
	PD Psych./Moral Development	.42*
Mentor	Challenging	.53*
	Supportive	.48*
	Trustworthy	.33*
School Culture		.27*
Personal and Contextual variables		
Gender		.03
Previous experience		.07
Previous support		.05
Preparedness for job		.08
Having colleagues in same subject department		.13

* $p < .01$

Table 4.3 shows that the experienced influence of an induction program on professional development correlates strongly with many characteristics of the induction program. Differences between most correlation coefficients are not very large, but the four characteristics correlating most strongly with the experienced influence of an induction program on professional development are: (1) the degree to which the mentor Challenges the teacher, (2) the Content, Professional Development, referring to the degree of attention for professional development, (3) the degree to which the mentor Supports the beginning teacher, and (4) the Facilities provided. Noteworthy is that not only characteristics related to support of beginning teachers' professional development correlate strongly with the experienced influence on their professional development, but also characteristics such as attention for Emotional Support and the degree of Supportiveness of the mentor. The Personal and Contextual factors included in our questionnaire, on the other hand, appear to have no impact on the degree of influence experienced.

In the regression analysis, used to investigate how well the experienced influence on professional development was predicted by characteristics of the induction program, we included the characteristics of the induction program (main scales and subscales), as well as School Culture and the measured Personal and Contextual variables. Table 4.4 shows the model that best predicts the experienced influence on beginning teachers' professional development.

Table 4.4 Regression analysis on Professional Development

	R	Beta	Sig
Mentor. Challenging	.54	.25	.00
Content. Practical Information	.61	.17	.00
Content. Professional Development	.65	.16	.01
Mentor. Trustworthy	.67	.16	.00
Facilities	.68	.13	.03
Intensity	.69	.13	.04

The model that best predicts the experienced influence on professional development includes six variables which are all characteristics of an induction program. None of the Personal and Contextual variables are included in the predictive model. The variables included in the model explain 48% of the variance in the experienced influence on professional development. Again, it is noteworthy that characteristics not directly related to support of professional development, such as the Trustworthiness of the mentor, appear to be important in explaining the experienced influence of induction programs on beginning teachers' professional development.

4.4.3 Characteristics of influential induction programs

Fourteen percent of the respondents indicated that the induction program they had been supported by had strongly influenced their professional development. Further analysis of this group of respondents is most interesting because this group can provide further insight into the essential characteristics of induction programs that influence beginning teachers' professional development.

In order to answer the third research question, we analyzed the characteristics of the induction programs these respondents (N = 43) had been supported by. Table 4.5 presents the descriptive statistics of the Z-scores of this sub-group. For each element, the Z-score in the whole group is 0. The score 1 represents one standard deviation above average, the score -1 represents 1 standard deviation below average. The presented Z-scores thus indicate the relative scores of the sub-group in relation to the whole group of respondents.

Table 4.5 Z-scores of influential induction programs on the various elements of induction programs (N = 43)

		Mean	SD	Min	Max
Facilities		.67	.82	-1.6	2.0
Intensity Individual Support		.26	.93	-2.7	.86
Intensity Group Support		.23	.92	-1.7	.79
Content	PD Pedagogy	.70	.96	-1.6	2.7
	PD Classroom Management	.53	.97	-1.9	2.1
	PD Psych./Moral Development	.45	1.2	-1.3	3.4
	Emotional Support	.37	.94	-1.8	1.6
	Practical Information	.48	1.1	-1.4	1.6
Mentor	Challenging	.71	.96	-2.5	1.7
	Supportive	.57	.90	-2.0	3.0
	Trustworthy	.39	1.1	-1.8	1.5

The results presented in Table 4.5 show clear differences between the Z-scores on the various elements of induction programs. In some aspects the induction programs that are experienced as strongly influential on professional development differ from the average to a relatively large degree, but in several aspects these induction programs differ only slightly.

The average Z-scores in the subgroup are high for Mentor Challenging, Content Pedagogy, and Facilities. This indicates that the respondents who had been supported by an induction program that was perceived as strongly influential on their professional development, typically had a mentor who was perceived to be stronger than average, and able to challenge the beginning teacher in his or her professional development. Also, subjects related to professional development, and especially pedagogy, received more attention than average. Furthermore, the teachers received more facilities than average. The Intensity of Individual Support and Group Support had the lowest Z-scores, namely 0.26 and 0.23, respectively. These scores indicate that the induction programs experienced as influential on professional development were only slightly more intensive than average.

Though Table 4.5 shows interesting and clear differences between induction programs perceived to be greatly influential on professional development and the average, the results also show variation between these induction programs. This indicates a need to be careful with our interpretation. Especially noteworthy are the minimum Z-scores; for all elements of an induction program the minimum Z-scores are far below average. Though we see a general pattern that induction programs experienced as strongly influential on beginning teachers' professional development have higher scores for all elements of the induction program, and especially the degree to which the mentor challenges the beginning teacher, the attention for pedagogy, and the facilities provided, there are clearly examples in which some of the elements score very low.

The presented Z-scores show the relative differences between the average induction program and the induction programs that are experienced as being strongly influential on the professional development of beginning teachers. Also, the Z-scores show the relative importance of the various elements of an induction program in relation to the perceived influence of the induction program on professional development. In line with this we present the results which indicate more concretely the characteristics of induction programs that are experienced as influential on professional development and their differences with the average induction program.

First, Table 4.6 presents the percentages of respondents that had experience with the various Formats used to support beginning teachers. Table 4.6 includes the percentages of the whole group and the percentages of the subgroup of respondents who experienced their induction program as strongly influential.

Table 4.6 Percentage of the respondents attending the various formats of support

	Whole group	Subgroup
Introduction meeting	79%	85%
Group meeting with beginning teachers	64%	78%
Individual conversation with mentor from the same subject department	74%	85%
Individual conversation with mentor from a different subject department	62%	76%
Class visit by a mentor, including evaluation	90%	95%
Class visit by a mentor, including videotaping of lesson and evaluation	52%	61%
The beginning teacher visiting lessons of colleagues	65%	80%
Other formats (e.g., training)	16%	34%

With regard to the formats used in induction programs, we see a slightly higher percentage of respondents in the subgroup having attended the various formats in comparison to the whole group. Furthermore, we see the same pattern in the subgroup as in the whole group: the format used most often is that of class visits by a mentor, including evaluation, but other formats, such as an introduction meeting and group meetings with beginning teachers, are also used in many induction programs.

The scores indicating the Intensity of the induction programs were divided over five categories: the first category refers to 'no support at all' and the last category to a very high intensity of 80 hours or even more. (For a more detailed description of the categorization of the scores referring to the intensity of the induction program, see Chapter 3.) Figure 4.2 shows the frequency scores in the five categories of intensity in the subgroup and in the whole group.

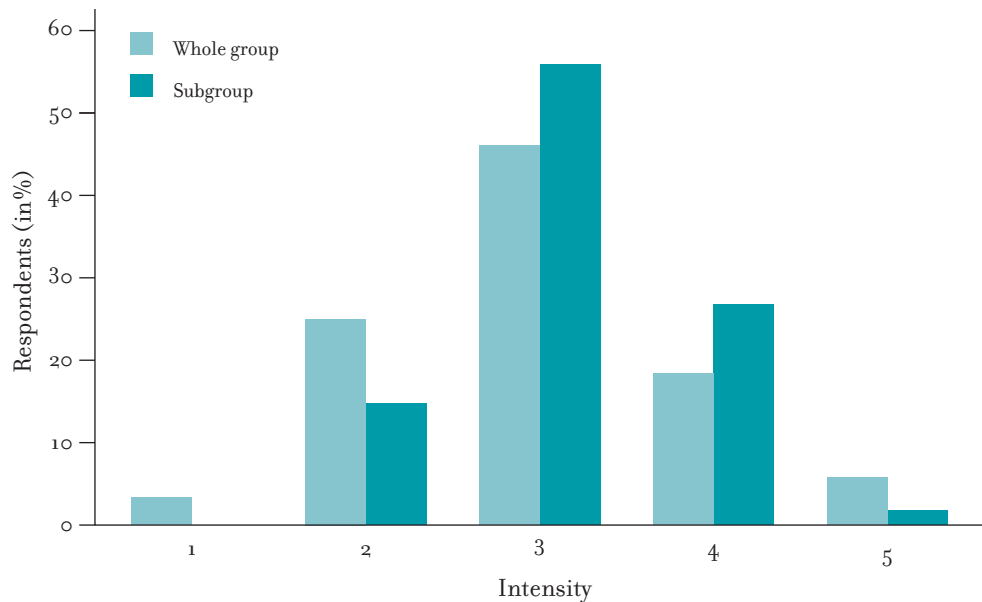


Figure 4.2 Frequency distribution of intensity scores in the whole group and subgroup

All respondents in the subgroup were supported by an induction program. As in the whole group, most respondents were supported by an induction program with a moderate intensity. Remarkable is that 15% of the respondents who experienced their induction program as strongly influential on their professional development had been supported by an induction program of only limited intensity. Also noteworthy is the fact that only 2% of respondents in the subgroup had been supported by a very high-intensity induction program, compared with 6% of respondents in the whole group.

Category 3 refers to a total score of 15 to 20, which can be seen as a moderate intensity. The exact average for the whole group is a score of 16. In comparison, the average intensity of the induction program in the subgroup is a score of 18. This score also falls in category 3.

Figure 4.3 illustrates the difference between the whole group and the subgroup with regard to the Facilities offered in relation to the induction program. Based on a scale of 7 items asking the respondents about a number of facilities, each respondent's average score was calculated, indicating the degree of facilities the respondent received in relation to the induction program. Figure 4.3 contains the frequency scores of the whole group and the subgroup on various degrees of facilities. (A score of 1 indicates a low degree of facilities and a score of 4 indicates a high degree of facilities.)

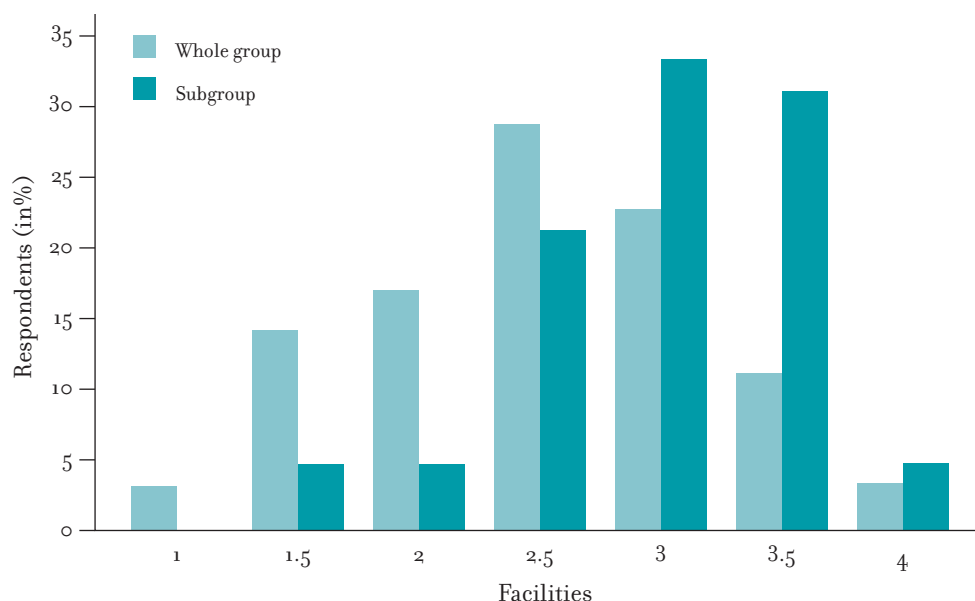


Figure 4.3 Relative frequency distribution of the degree of facilities in the whole group and subgroup

Figure 4.3 shows a considerable difference between the scores in the whole group and the subgroup concerning the Facilities offered in the induction programs. The average score in the subgroup is 3.0, which indicates that, in general, the induction programs in this group are well organized, with good facilities. For example, 81% of the respondents in the subgroup received extra time for activities related to the induction program versus 56% of the respondents in the whole group. Seventy-nine percent of the respondents in the subgroup versus 53% in the whole group indicated that their time table was adapted to the induction program in order to enable, for example, group meetings for beginning teachers. Also, 67% in the subgroup versus 50% in the whole group received dispensation from extra tasks such as monitoring of students. In short, the induction programs that are experienced as being (strongly) influential on the professional development of beginning teachers are generally organized well and better facilitated than average.

The respondents were asked about the degree of attention for Professional Development, Emotional Support, and Practical Information in the induction program. With regard to their Professional Development, a distinction was made between attention for (1) Pedagogy, (2) Classroom Management, and (3) the Psychological and Moral Development of Students. Table 4.7 presents the mean scores in the subgroup and the whole group, referring to the degree of attention for the various subjects. For this table, the scores referring to the degree of attention

for Emotional support and Practical Information were transformed to a five-point Likert scale, which is comparable with the five-point Likert scale used to measure the degree of attention for the various subjects related to Professional Development.

Table 4.7 Degree of attention for various subjects

	Mean whole group	Mean subgroup
PD Pedagogy (1-5)	2.5	3.2
PD Classroom Management (1-5)	2.9	3.5
PD Psych./Moral Development (1-5)	2.1	2.5
Emotional Support (1-5)	3.1	3.7
Practical Information (1-5)	2.6	3.3

The respondents in the subgroup indicated a higher degree of attention for the various subjects than the respondents in the whole group, not only for the subjects related to Professional Development, but also for Emotional support and Practical information. Concerning the content of induction programs, the largest difference between an average induction program and induction programs that are experienced as (strongly) influential is the degree of attention for Pedagogy. In an average induction program, Pedagogy receives attention only sometimes, while in the subgroup, Pedagogy receives attention regularly. However, Classroom Management and Emotional Support still receive the most attention.

The fifth element of induction programs is the Mentor. Respondents were asked about several characteristics of their mentor: namely, the degree to which the mentor is able to Challenge the beginning teacher in his or her professional development, the degree to which the mentor Supports the beginning teacher, and the degree to which the mentor is able to create a Trusting relationship with the teacher. Table 4.8 presents the mean scores and standard deviations of the various characteristics of the mentors in the whole group and in the subgroup.

Table 4.8 Mentor characteristics

		Mean whole group	Mean subgroup
Mentor	Challenging (1-5)	3.4	4.1
	Supportive (1-5)	3.7	4.3
	Trustworthy (1-5)	3.8	4.1

In the whole group, the scores for the various characteristics are relatively high; this is especially the case for the Supportiveness of the mentor and the degree to which the mentor is able to create a Trusting relationship. On average, the respondents thus felt very much at ease with

their formal mentor and felt supported by their mentor. In the subgroup the scores for the various characteristics are even higher. The largest difference with the whole group is the degree to which the mentors are able to Challenge the beginning teachers in their professional development. Not only do respondents in the subgroup feel supported and at ease with their mentor, but they also feel challenged in their professional development by their mentor.

4.5 Conclusion and discussion

A large-scale survey study was conducted amongst teachers who had recently finished their induction period. Based on the findings of this study we aimed to gain insight into how induction programs influence the professional development of beginning teachers.

4.5.1 Induction programs' influence on beginning teachers' professional development

We investigated how beginning teachers experienced the influence of the support received from an induction program on their professional development. When asked about their idea of the value of support from an induction program on their professional development, most respondents were very positive; 80% of the respondents agreed with the general statement 'With an induction program, one becomes a better teacher,' and 79% of the respondents disagreed with the statement 'Without the support of an induction program, one learns just as much as with the support of an induction program'.

However, when asked about their personal experiences, the reactions were generally less positive. Most respondents in our study experienced little to moderate influence of the induction program on their professional development. Thirty-two percent of the respondents experienced no influence, and only 14% of the respondents experienced a strong influence. The least influence was experienced on the professionalization in the area of pedagogy, which is also often mentioned in the literature as receiving too little attention in induction programs (e.g., Wang & Odell, 2002). Also, it corresponds with the picture that arises from other research, that effects of induction programs on the professional development of beginning teachers are possible, but certainly not guaranteed (e.g., Athanases & Achinstein, 2003; Carver & Katz, 2004; Luft & Cox, 2001; Norman & Feiman-Nemser, 2005).

Remarkable was that, while the respondents generally experienced only little to moderate influence of the induction program on their professional development, more than half of the respondents nevertheless fully agreed that they had been supported with a good induction program. This may be due to low expectations of beginning teachers of induction programs and the

influence of induction programs on their professional development, or there may be other effects of induction programs which are considered to be more important. In a previous interview study (see Chapter 2), we found that teachers experienced some influence on their professional development, but mainly valued the induction program for its influence on their emotional well-being. This may explain why most beginning teachers were satisfied with the support they received, even though they experienced little to moderate influence on their professional development.

4.5.2 Explanation of differences in experienced influence of induction programs on professional development

Though we found that most teachers experienced little to moderate influence of the induction program on their professional development, we also found that a large part of the variation in experienced influence on professional development could be accounted for by differences between induction programs. Differences between the induction programs with which the respondents were supported explained 48% of the variance in the experienced influence on their professional development. Most strongly, the experienced influence depended on the degree to which the mentor challenged the beginning teacher by identifying the difficulties in the mentee's teaching practice, and asking the right questions to trigger reflection, hereby challenging the beginning teacher in his or her professional development. The importance of the quality of the mentor is emphasized by many studies (Athanasides et al., 2008; Feiman-Nemser, 2001b; Orland, 2001). However, several other elements of the induction program also correlated rather strongly with the experienced influence on professional development. Remarkable was that, apart from characteristics related to the support of professional development, characteristics related to emotional care, for example, the supportiveness of the mentor and the attention for subjects related to emotional care, also correlated relatively strongly with the experienced influence of the induction program on beginning teachers' professional development. This result may reflect the necessity for safety and emotional well-being in order to develop professionally, which would support Gold (1996), who emphasizes the importance of emotional support for beginning teachers. On the other hand, this result may also reflect that in induction programs the support aimed at emotional care is generally developed first, after which thorough support aimed at professional development may also be developed. The correlation found may thus reflect not a causal relationship between characteristics of the induction program related to emotional care and beginning teachers' professional development, but a (non-causal) relationship between support aimed at teachers' professional development and support aimed at emotional care.

Fifty-two percent of the variance in the experienced influence on professional development could not be explained by differences between characteristics of induction programs. It is not

clear what kind of variables played a further role in the experienced influence on professional development. Williams, Prestage, and Bedward (2001) found that the degree of cooperation in a school is of large influence on the effects of induction programs on the professional development of beginning teachers. The current study findings showed a moderate correlation between school culture and the experienced influence of the induction program on the professional development of teachers. Though this finding concurs with the findings of Williams et al., school culture did not significantly contribute to the explanation of the variance in the experienced influence of the induction program on the professional development of teachers, and neither did any of the contextual and personal variables included in the questionnaire, such as previous experience, experienced degree of preparedness when starting to teach, the kind of pre-service education of the respondent, and his or her age.

4.5.3 Characteristics of influential induction programs

We aimed to gain more insight into the specific characteristics of induction programs that are experienced as strongly influential on the professional development of teachers. To this end, we investigated the characteristics of the induction program followed by the 14% of the respondents who indicated that their induction program had been strongly influential on their professional development. The results have to be interpreted with caution, since the characteristics of the influential induction programs vary, as is particularly visible in the minimum and maximum scores for the various elements of induction programs. Nevertheless, the results reveal an interesting picture concerning the characteristics of induction programs that are experienced as strongly influential on professional development.

Much more than average, these programs were well organized well and facilitated. These induction programs generally included facilities such as extra time for beginning teachers, meant for activities related to the induction program; dispensation from several tasks such as monitoring of students; and the arrangement that time schedules for beginning teachers matched with activities related to the induction program. These programs were characterized by a mentor who was not only highly supportive and able to create a trusting relationship with the beginning teachers, but who was also able to challenge the beginning teacher in his or her professional development. The degree to which a mentor is able to challenge the beginning teacher in his or her professional development is one of the characteristics on which the strongly influential induction programs differed the most from the average induction program. The induction programs that were indicated as being strongly influential on the professional development of beginning teachers generally included various forms of support, such as group meetings with beginning teachers, class visits by a mentor from the same subject department and from a different subject department, an introduction meeting, and class visits by the beginning teacher. However, though these induction programs generally included a larger variety

of forms of support than the average induction program, the difference with the average induction program was relatively small. The average induction program also includes a variety of forms of support.

The intensity of induction programs experienced as strongly influential on professional development was usually not very high, and only slightly higher than the intensity of an average induction program. Both generally had an intensity in the category which was defined as 'moderate'. Though the induction programs experienced as strongly influential generally were of a moderate intensity, compared to the average induction program, respondents indicated a clearly higher degree of attention for the various subjects. Emotional support, practical information, and professional development all received considerable attention. The degree of attention for pedagogy, in particular, was generally higher than in the average induction program. Concerning the various subjects of professional development (pedagogy, classroom management, and the psychological and moral development of students), classroom management received the most attention.

In conclusion, the current findings indicate that beginning teachers in the Netherlands generally experience little to moderate influence of the induction program on their professional development. However, this finding does not mean that the induction programs are not important for the professional development of beginning teachers, as can be concluded from the results concerning the relationship between the various elements of induction programs and the experienced influence of the induction program on their professional development. These results indicate that the experienced influence on professional development strongly depends on the characteristics of the induction program. The generally low to moderate influence experienced on professional development can thus largely be attributed to the fact that most induction programs do not contain (all of) the characteristics that are perceived as being essential to contribute to the professional development of beginning teachers. Britton et al. (2003) described a number of characteristics of comprehensive induction programs which mainly refer to various formats used to support beginning teachers. The current findings indicate that influential induction programs include a variety of formats, but providing a variety of formats is not the most important characteristic of a comprehensive induction program. Based on the current results we would conclude that in order to obtain a greater influence of the induction program on the professional development of beginning teachers, the most important points of improvement (in the Netherlands) are to better organize the programs and provide better facilities; pay more attention to the various subjects, especially to topics related to pedagogy; and to include mentors or educate mentors who are much better able to challenge the beginning teachers in their professional development.

4.5.4 Limitations of the study

An important limitation of our study is that we based our conclusions on self-reporting of the beginning teachers without validating these self-reports using other kinds of measures. This is a disadvantage of the method used. In order to reach a large number of teachers who had different experiences with induction, we used a survey on the internet, and beginning teachers were invited to participate in our study by email. We succeeded in our aim of getting a sufficient number of respondents, but the method of using an online survey as well as the large number of respondents was not compatible with validating our data by gathering extra information from other sources such as the mentor, students, or observations. In subsequent research it would be desirable to validate self-reporting measures using information from other sources.

A second limitation is that we base our conclusions about the relationship between the characteristics of the induction program and the experienced influence on correlations. Though it seems logical to conclude that characteristics of the induction program influenced the experienced influence on professional development, theoretically we cannot say anything about a causal relationship. A possible risk is that, as a consequence of biased memory, respondents' reports of support may differ from the support they actually received. The experienced influence on professional development might thus color the memory of the support received.

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CHAPTER 5

Conclusions and discussion

5.1 Overview of the study

The central question of the current research project was: 'What is the influence of induction programs on beginning teachers' well-being and professional development, and what characteristics of induction programs are essential to influence beginning teachers' well-being and professional development?' The research project consisted of two studies, an interview study and a survey study.

Because not much is known about the content and specific characteristics of Dutch induction programs, it was first necessary to create a frame of reference. Therefore, the first aim of the interview study was to identify the various elements of induction programs and the extent to which they differ. The study's second aim was to gain insight into the manner in which beginning teachers in the Netherlands are supported with an induction program and how mentors and teachers view and experience this support.

The specific research questions answered by this interview study were:

- 1 What elements of an induction program can be distinguished?
- 2 How are beginning teachers in the Netherlands supported with an induction program?
- 3 What do mentors report on their ideas and actions concerning their role as mentor of beginning teachers?
- 4 What do teachers report on their experiences of the influence of the induction program?

Participating in the interview study were 12 mentors and 22 beginning teachers from 12 different schools. All schools offered induction programs, but their content and intensity varied greatly.

The second study was a survey study. Based on the interview study, a questionnaire was developed in order to conduct a large-scale survey study amongst beginning teachers in the Netherlands. The survey study's aim was to gain insight into how beginning teachers in the Netherlands are supported with an induction program on a larger scale. This study also attempted to gain insight into how characteristics of an induction program relate to the well-being and professional development of beginning teachers. We aimed to establish to what extent induction programs influence beginning teachers' state of well-being and professional

development, and what characteristics of induction programs are essential in realizing this.

The specific research questions answered by this survey study were:

- 1 What is the degree of the state of well-being of beginning teachers?
- 2 How are beginning teachers in the Netherlands supported with an induction program?
- 3 How do characteristics of the induction program relate to the well-being of beginning teachers?
- 4 How do beginning teachers experience the influence of an induction program on their professional development?
- 5 How can differences in experienced influence of the induction program on professional development be explained?
- 6 What are the characteristics of induction programs that teachers experience as influential on their professional development?

Three hundred and sixteen beginning teachers participated in the survey study.

5.2 Conclusions

In this section the conclusions are described per research question, first for the interview study and then for the survey study.

5.2.1 Interview study

1 What elements of an induction program can be distinguished?

Based on the interviews with mentors and beginning teachers, five main elements of induction programs were distinguished, namely (1) the program's intensity, (2) the facilities that were offered, (3), the format that was used, (4) the program's content, and (5) the mentor's role. Some of these elements were further divided in sub-elements. Table 2.2 in chapter 2 presents an overview of the distinguishable elements and sub-elements of an induction program. It can be concluded that the (sub-)elements distinguished in the interview study resemble those that are generally reported in the induction literature (Feiman-Nesmeser, 2001a). Based on the distinguished elements, we further analyzed how beginning teachers in the Netherlands are supported by induction programs. The overview of (sub-)elements of induction programs also constituted the basis of the questionnaire developed for the survey study.

2 How are beginning teachers in the Netherlands supported with an induction program?

All schools participating in the interview study made use of induction programs to support

beginning teachers, meaning that all schools offered some form of organized formal support to beginning teachers. Most induction programs were of a low intensity, consisting of 15 to 25 hours of support for beginning teachers, but there were also programs with a moderate to high intensity, consisting of more than 50 hours of support for every beginning teacher. In practice, teachers often received less support than was originally planned for, sometimes because the teachers were offered fewer hours of support than officially planned for, but just as often because teachers themselves chose to receive less support. Mentors received a specific number of hours for their work in the induction program, and teachers were usually given dispensation from several standard teacher duties. In most high-intensity induction programs beginning teachers also received time to participate in the induction program.

Low- and high-intensity induction programs consisted of a variety of formats. Though the exact form varied, formats that were often used included introduction meetings, individual meetings between teachers and mentors (with or without a class visit), and group meetings where beginning teachers could share their experiences with one another. Formats that were used less often included specific skills training and classroom observations of experienced colleagues. We saw these formats in the induction programs with a higher intensity.

With regard to the content of induction programs, most induction programs paid specific attention to the areas of emotional support and practical information. Overall, the attention for professional development was limited. Mentors were generally focused on welcoming new teachers, making them feel at ease and stimulating them to become part of the school community. In relation to professional development, classroom management was often the main focus, more so than pedagogy and the moral and psychological development of students. Induction programs of a higher intensity often paid more attention to professional development.

Mentors generally took care to develop a trusting relationship and were sufficiently supportive of their mentee(s). However, the extent to which they were able to challenge beginning teachers in their professional development was sometimes limited. A number of teachers admired their mentor's capacity to critically observe his or her mentee's teaching practice, ask the right questions, and stimulate reflection, but several teachers criticized their mentor's capability of challenging them in their professional development. Mentors were deemed to be too vague, or simply incapable of being of any assistance to their mentees.

It can be concluded that many beginning teachers in the Netherlands are more or less supported with an induction program, but there is much variety in induction programs' intensity, facilities, formats and content. Mentors have an important supportive role in induction programs, but teachers have positive as well as negative opinions about their mentor's capability of challenging them in their professional development.

3 What do mentors report on their ideas and actions concerning their role as mentor of beginning teachers?

Two themes emerged with regard to the mentors' ideas and actions concerning their role as mentors. The first theme concerned the manner in which mentors tend to guide the professional development of beginning teachers (the mentoring approach), and the second theme concerned what mentors tend to focus on (the mentoring focus).

Mentors seemingly shared a similar vision of how beginning teachers should be supported in their professional development, but when they were asked to explain in concrete terms how they actually accomplished this support, differences became apparent. The vision shared by most mentors was that it is their role to stimulate the reflection process of beginning teachers by asking questions rather than trying to help them by offering advice or tips. However, when talking more concretely about how they actually guide beginning teachers, most mentors indicated that they first ask the teacher how he or she feels about a certain situation, after which they offer their own opinion. Only a few mentors indicated that they try to continue the reflection process of teachers; they keep thinking along with the beginning teachers, even when they are focused on something quite besides the point, until the teachers themselves realize that they should be discussing a different issue. We concluded that, in general, mentors find it important to support the professional development of beginning teachers by means of reflection; however, in practice only few mentors actually seem to realize this goal.

The second theme concerned the mentors' focus. Based on the interviews, we identified two focal points. The first entails a focus on the needs of teachers, while the second entails a focus on the needs of students. We concluded that most mentors focus on the needs of teachers. In their support of teachers' professional development, these mentors try to help beginning teachers with the problems they encounter in their teaching practice, which generally translates into a focus on classroom management issues. These mentors feel that once a teacher is in control of the class, he or she can do things alone and no longer needs continuing support of the mentor. However, some mentors focus on students' needs; instead of being focused on making sure that the beginning teachers are doing well and feeling comfortable, these mentors focus on helping and supporting beginning teachers to make sure that the students learn well and feel well doing so. Besides paying attention to classroom management, mentors identified as having a student-centered focus pay more attention to pedagogy and the moral and psychological development of students.

4 What do teachers report on their experiences of the influence of the induction program?

Most teachers considered the support of an induction program truly essential for their first year of teaching. They referred most strongly to the influence they felt the program had on their emotional well-being. Teachers gained self-confidence through group meetings

where they learned about their colleagues' experiences, which were not all that successful either. Teachers felt welcomed and rewarded because of the special attention paid to them. The induction program often created strong bonds between beginning teachers, which prevented them from feeling alone and isolated; the support of a mentor, or even just the thought that there was someone whom they could turn to for help, made teachers feel supported. What was remarkable was that, in spite of differences between induction programs, virtually all teachers who had received at least some form of support from an induction program confirmed that it had had a positive influence on their well-being. The induction program's value for teachers' professional development was expressed less strongly than that for their well-being, although most teachers were able to report things they had learned because of the induction program's support. Most teachers considered the added value of the induction program to their professional development simply to be that it had accelerated it, though some teachers felt that it had truly changed their professional development for the better. These teachers mostly pointed to the influence their mentor's support had on their reflection skills. The support offered through the induction program made them look at themselves more critically. Based on these results it can be concluded that, in the view of the teachers, most induction programs influence the professional development of beginning teachers, albeit on a small scale. Induction programs greatly influence the well-being of beginning teachers, but little content is required of an induction program to realize such a positive influence.

5.2.2 Survey study

1 What is the degree of the state of well-being of beginning teachers?

The results from the survey study indicate that, overall, beginning teachers in the Netherlands experience a fairly positive state of well-being. Teachers reported that they felt comfortable at their school during their first year of teaching. They did not feel they had to face difficulties alone, and most respondents felt appreciated and fairly confident of their teaching skills. Although it can be concluded that most beginning teachers experience a positive well-being, we have to take into consideration the fact that 21% of the respondents reported a negative state of well-being.

2 How are beginning teachers in the Netherlands supported with an induction program?

The results from our survey study confirm those of the interview study and led us to conclude that many schools support beginning teachers with an induction program. Many induction programs include an introduction meeting, individual meetings between beginning teacher and mentor, and class visits from the mentor. Although used less often, group meetings where beginning teachers can share their experiences are also included fairly

frequently. Most induction programs are of a moderate intensity. Attention is mostly paid to emotional care and classroom management. Only limited facilities are available to teachers; teachers often do not receive extra time for induction program-related activities, nor do they always receive dispensation from teacher duties. Teachers are mainly positive when it comes to their mentors, especially with regard to their mentor's supportiveness and trustworthiness.

3 **How do characteristics of the induction program relate to the well-being of beginning teachers?**

Correlation analysis showed that the different characteristics of induction programs correlate positively with the well-being of beginning teachers. These results indicate that induction programs influence the well-being of beginning teachers. To this end it is essential that the mentor is supportive. Attention for emotional support is important, as well as the extent to which the mentor is trustworthy and the facilities that are available. However, even more important for the well-being of beginning teachers than any characteristic of the formal induction program seems to be a supportive school culture: a culture in which beginning teachers feel supported by the school administrators, can ask colleagues for help, share a kinship with these colleagues, and feel appreciated by them. This is in line with Day, Sammons, Stobart, Kington and Gu (2007), who found a supportive management and colleagues to be crucial for a positive job satisfaction of teachers during their teaching career. This result seemingly puts the importance of the induction program for the well-being of beginning teachers into perspective, but our study also showed that the school culture correlates strongly with the different elements that make up an induction program. Before disregarding the importance of the induction program for the well-being of beginning teachers, one has to gain a better insight into the relationship between characteristics of the induction program and the school culture. Perhaps schools with a supportive school culture tend to invest more in an induction program than schools with a less supportive school culture, but it is also possible that the existence of induction programs contributes to a more supportive school culture. A third possibility is that the found correlations between characteristics of an induction program and school culture represent a more dynamic relationship. For now we conclude that both a supportive school culture and the use of an induction program are important for the well-being of beginning teachers. In order to contribute to beginning teachers' well-being with an induction program, it is most important that the mentor is supportive.

4 **How do beginning teachers experience the influence of an induction program on their professional development?**

Most respondents were very positive when asked whether an induction program in general was of value to beginning teachers' professional development. However, when asked about

their personal experiences and to what extent their induction program had aided in their professional development, the response was markedly less positive. Most respondents experienced little to fairly little influence from the induction program on their personal professional development. Only 14% experienced a strong influence. The least amount of influence was felt in the area of pedagogy, something that is often mentioned in literature as lacking attention (see Wang & Odell, 2002). Still, most teachers indicated that they were pleased with the support they had received from the induction program.

Our conclusion is that induction programs have only limited influence on beginning teachers' professional development. Interestingly enough, teachers do not seem to mind this. Despite indicating that they experienced very little influence on their professional development, most teachers were positive about the amount of support they received.

5 **How can differences in experienced influence of the induction program on professional development be explained?**

Beginning teachers' perceived influence of the induction program on their professional development can largely be explained by the induction program's characteristics: 48% of the variation found in the perceived influence on professional development was accounted for by differences between induction programs. This indicates that the influence of induction programs on the professional development largely depends on the characteristics of the induction program. It can be concluded that the induction programs' influence depends most strongly on the mentor. The extent to which a mentor is able to critically observe teachers, ask questions that make them reflect and challenge them in their professional development, is essential in order for an induction program to contribute to the professional development of beginning teachers. Besides the characteristics of induction programs relating to the support of teachers in their professional development, attention for emotional support and the mentor's supportiveness appeared to correlate strongly with the perceived influence on professional development as well, indicating that in order to contribute to beginning teachers' professional development it is important to create a safe and supportive environment.

6 **What are the characteristics of induction programs that teachers experience as influential on their professional development?**

The results of the survey study led to several conclusions about the characteristics of induction programs that teachers experienced as strongly influential on their professional development as well as differences between the characteristics of these programs and the average induction program. Like the average induction program, influential induction programs include various support formats. A clear difference with the average induction program is that influential induction programs are generally well organized and well facilitated. Mentors in influential induction programs are supportive, trustworthy and able to

challenge the beginning teacher in his or her professional development. This latter characteristic of the mentor is the greatest difference with the average induction program; in the average induction program, mentors are able to challenge beginning teachers in their professional development only to a limited degree. More so than in the average induction program, influential induction programs include attention for emotional care, practical information and especially for subjects related to professional development. However, surprisingly, there is only a small difference between influential induction programs and the average induction program with regard to the intensity of the induction program. Also, influential induction programs generally have a moderate intensity.

5.3 Discussion

Considering the results of both studies of this research project and the literature, this raises several points of discussion. In this section we will discuss our findings regarding the influence of induction programs on beginning teachers' well-being and professional development. Based on the knowledge gained from the current research project, we will conclude by discussing the current practice of supporting beginning teachers with an induction program.

5.3.1 The well-being of beginning teachers

In the interview study as well as in the survey study we found that the participants generally reported a relatively positive well-being in their first year of teaching. The participants felt appreciated by their (more experienced) colleagues and they felt connected with their colleagues, especially with the other beginning teachers. Though they experienced difficulties and sometimes stress, the participants generally reported of quite some self-confidence as a teacher. This is in contrast with the large quantity of literature about beginning teachers' difficulties and negative well-being (e.g., Bullough, 1989; Corcoran, 1989; Gold, 1996; Huberman, 1984; Odell, 1986; Sikes Measor & Woods, 1985; Veenman, 1984). There may be various reasons for the discrepancy between our findings and the often reported negative well-being of beginning teachers. It is often argued that beginning teachers ought to be supported by induction programs, amongst others, to sustain their emotional well-being. Precisely the fact that many schools in the Netherlands nowadays use an induction program might be an important factor explaining our results regarding the degree of reported well-being. This explanation is supported by the results pertaining to the relationship between elements of an induction program and the well-being of beginning teachers in both the survey study as well as in the interview study. These results indicate that induction programs contribute to beginning teachers' well-

being, especially when the induction program is well organized and facilitated, the mentor is supportive, pays attention to emotional care and can create a base of trust. Other studies also show that induction programs contribute to beginning teachers' well-being (Chubbuck, Clift, Allard, & Quinlan, 2001; Helsel, DeWert, Babinski, & Jones, 2003; Molner Kelley, 2004; Reiman, Alan, Bostick, & Dee, 1995), which increases the plausibility of this explanation. Yet another important factor responsible for the relatively positive well-being reported by our participating teachers might be the school culture. We found that respondents in the survey study generally reported of a positive school culture. The strikingly strong relationship between school culture and the reported well-being in the first year of teaching supports the idea that the positive school culture as experienced by the respondent (partly) explains the relatively positive well-being of beginning teachers. Kelchtermans and Ballet (2002) and Zeichner and Gore (1990) also emphasize the importance of the school culture for teachers. As Kelchtermans and Ballet wrote: 'Professional relationships within the school are extremely important to beginning teachers in order to develop a positive self-esteem' (Kelchtermans & Ballet, 2002, p.111).

Besides the increased use of induction programs and a positive school culture, a third factor that might play a role in our results relates to the research design. In our studies we asked teachers who had one to four years experience as a teacher to report on their well-being in their first year of teaching. In several ways this design can contribute to slightly biased results. Having more experience as a teacher and in a particular school, it is likely that one has gained more self-confidence as a teacher and feels more comfortable in the school. It is possible that looking back at the first year of teaching from this position may positively influence the memory of difficulties in the first year of teaching. On the other hand, if the first year is indeed experienced as an extremely hard or even traumatic phase, it seems unlikely that teachers would forget this. Another effect of the research design is possibly a non-representative selection of teachers. Teachers with a positive well-being might have been more likely to participate in our research. Also, teachers who quit teaching after their first year (possibly as a consequence of a negative well-being) did not participate in our interview study. On the other hand, several respondents in the survey study did not work as a teacher anymore and a number of teachers indicated they filled out the questionnaire because of their negative experiences in their first year of teaching about which they wanted to inform us. Though we have to take into account the possibility that the research design partly explains our relatively positive results on the well-being of beginning teachers, we also have several indications that also teachers with a negative well-being participated in our research.

5.3.2 The professional development of beginning teachers

Regarding the influence of induction programs on the professional development of beginning teachers, the literature shows a differentiated picture. Several studies show positive effects of induction programs on professional development (Athanasios & Achinstein, 2003; Achinstein & Barrett, 2004; Luft & Cox, 2001; Napper-Owen & Philips, 1995), but others show very limited influence or even no influence at all (Carver & Katz, 2004; Glazerman et al., 2008; Strong & Baron, 2004). In general, the impression is that positive effects of induction programs on the professional development of beginning teachers are possible, but certainly not guaranteed. The results of our survey study concur with this impression; most beginning teachers experienced little to moderate influence on their professional development from the induction program they had been supported by. However, a small part of the respondents experienced a strong influence on their professional development. The survey study showed that differences in experienced influence on professional development can largely be explained by differences between induction programs. Based on the survey study a number of factors can be identified that explain the often limited influence of induction programs on beginning teachers' professional development.

An important factor explaining the often limited influence of induction programs on beginning teachers' professional development appeared to be the degree of facilities offered in relation to the induction program. Strongly influential induction programs generally included many facilities, but most beginning teachers reported of few facilities in relation to the induction program. This is also one of the points of criticism of Feiman-Nemser who wrote about induction programs that they often lack the necessary resources (Feiman-Nemser, 2001a, p. 1031). The element facilities can be seen as a conditional element. It largely determines the attainability in the development of all other elements of induction programs: depending on the provided facilities, time can be invested by mentors and teachers in various formats and various topics, and mentors can be educated. The element facilities thus seems a crucial element of induction programs, which is indeed confirmed by our research.

Two other important elements explaining differences in experienced influence of the induction program on professional development appeared to be the degree to which the mentor is able to challenge beginning teachers intellectually and the degree of attention for pedagogy. On average, teachers perceived their mentors as not very challenging. Also, they reported limited attention for pedagogy. Indeed, this topic is often referred to in literature as receiving too little attention and is considered a limitation for the quality of induction programs (Feiman-Nemser, 2001a; Wang & Odell, 2002). The results of the interview study enable us to understand why induction programs generally include only limited attention for professional development. This study showed that most mentors participating in the interview study strongly focused on the concerns of teachers. As a consequence of this, most mentors mainly paid attention to classroom management and the well-being of beginning teachers. Most mentors had only little

attention for pedagogy and the psychological and moral development of students. Therefore, one of our important conclusions was that induction programs and mentors ought to focus more strongly on the concerns of students. This means that mentors have to challenge beginning teachers in areas that they are generally not (yet) focused on. Based on models describing the development of beginning teachers in various phases in which teachers have specific concerns (Fuller, 1969), it can be assumed that teachers are not yet ready for such challenges. But even though a topic is not yet the concern of teachers, it does not necessarily mean that teachers are not open to learning about these topics. For instance, Athanases and Achinstein (2003) showed that mentors were able to focus beginning teachers on the learning results of individual students. Moreover, our conclusion that induction programs ought to be more focused on the concerns of students does not necessarily imply that all topics have to be dealt with immediately. Rather, our conclusion implies that support from an induction program should not stop as soon as the teacher can manage the classroom. Lastly, a factor provided by the literature that helps explain the often limited influence of induction programs on beginning teachers' professional development is the lack of assessment procedures in induction programs (Athanases & Achinstein, 2003; Carver & Katz, 2004; Yusko & Feiman-Nemser, 2008). Assessment procedures and assessment tools can help mentors identify topics in the professional development of beginning teachers that deserve more attention. If necessary, assessment procedures also help mentors confront teachers about topics that need improvement, but, traditionally, induction programs do not include assessment procedures. The reason for this is that assessment procedures are considered to harm the base of trust between a mentor and a beginning teacher, while support of a mentor who can be trusted is seen as one of the most important goals of an induction program. Also in our interview study, we found that all but one of the induction programs the participating teachers had been supported by did not include an assessment procedure and that teachers perceived this as an important condition for a trusting relationship with their mentor.

5.3.3 The current state of practice with regard to supporting beginning teachers with induction programs

In our research, beginning teachers' well-being and professional development were considered separately as two important goals of an induction program. Yet, they are not fully independent of each other, which is supported by the positive correlation in the survey study between emotional support and the experienced influence of induction programs on professional development. This correlation indicates that emotional support contributes to beginning teachers' professional development. Beginning teachers' well-being is generally considered an important goal of induction programs, but usually related to prevention of attrition amongst teachers and not often related to professional development. However, beginning teachers'

well-being can be seen as an important condition for professional development (Gold & Roth, 1993; Ward, 1987). Challenging beginning teachers in their professional development includes confronting them with things that they do not yet master. Such confrontation is hard, especially when the beginning teacher does not feel safe and supported by his or her mentor. Our research showed that induction programs in the Netherlands generally include considerable attention for beginning teachers' well-being, and mentors are perceived as supportive and trustworthy. It is important that induction programs are aimed at contributing to beginning teachers' well-being. However, subsequently it is expected that, from a safe base, induction programs significantly contribute to beginning teachers' professional development. This research shows that induction programs in general contribute to beginning teachers' professional development only moderately. It is remarkable that over the past few decades research on induction programs has continued to lead to the conclusion that beginning teachers' professional development generally receives little attention. This raises the question whether it is realistic to expect, or to wish for, a change in the current practice of supporting beginning teachers with an induction program.

As described, investing in supporting beginning teachers' professional development thoroughly requires considerable facilities. Though professional development of beginning teachers is important, for schools this is still only one of many important things to invest in. Making sure that students are taught full schedules by certified teachers, providing students with facilities such as computers and books, enabling continuing professional development for the more experienced teachers and providing extra assistance for students who need it, are only a few examples that also need to be realized and may compete with thorough attention for beginning teachers' professional development. Also, our interview study as well as several other studies (e.g., Athanases et al., 2008; Feiman-Nemser, 2001b; Orland, 2001) showed that providing thorough attention to professional development is difficult and apparently not something that is automatically considered to be an important issue to pay attention to.

Nevertheless, despite the pressure of the many duties schools face, in many countries a still increasing number of schools does find a way to invest considerable time and effort in beginning teachers' professional development (Britton, Paine, Pimm, & Raizen, 2003; Guha, Shields, Tiffany-Morales, Bland, & Campbell, 2008; Luft, 2009; Scott, 2001). Although research on induction programs still leads to the conclusion that professional development generally receives limited attention, over the past few decades we can see a clearly positive development. In many countries, the use of induction programs has rapidly increased (e.g., Flores & Ferreira, 2009; Ling, 2009; Löfström, & Eischmidt, 2009) and the still increasing number of very good induction programs shows the progress of induction programs' quality. This development convinces us that it is realistic to expect that the degree of attention for beginning teachers' professional development may change. Moreover, the quality of teachers is of huge significance for the quality of education (e.g., Ferguson, 1991; Sanders & Rivers, 1996; Strauss & Sawyer, 1986). If we want to invest in the quality of education it is of utmost importance to invest in

teachers and thus in induction programs with a high degree of attention for beginning teachers' professional development.

5.4 Strengths and limitations of this study

This research project has several strengths and limitations. A first strength is the combination of the interview study and the survey study. By first conducting an interview study we were able to construct a questionnaire that corresponded well with the practice of induction programs. Also, it was possible to compare the results of both studies. The studies differed strongly with regard to the method used, but they shared a comparable focus of research. This strengthened the conclusions of both studies.

A second strength is the distinction in the questionnaire that, on the basis of the interview study, could be made between the various elements and sub-elements of induction programs. Also, several other variables were taken into account when investigating the relationship between induction programs and (a) the well-being of beginning teachers and (b) the experienced influence on the professional development. Usually, survey studies researching induction programs do not include such a distinction of elements and sub-elements, nor many other variables. When investigating induction programs with a survey study, usually only the intensity of the induction program and the kind of formats used in the induction program are taken into account. By distinguishing between the various elements and by including several other variables, we were able to attain a more detailed picture on the importance of the various elements and sub-elements.

A third strength consists of the fact that most research into induction programs are small-scale studies; besides using a small-scale study, this research project also included a large-scale study which enabled us to draw general conclusions about how teachers in the Netherlands are supported with induction programs, and about the relationship between characteristics of induction programs and the well-being of beginning teachers and their professional development. Because of this, it is also better possible to infer practical implications for schools and policymakers in the Netherlands.

A first limitation of the research project is that both studies were based on a retrospective method. The data collection in the interview study and the survey study was based on the memories of the participants. It is possible that participants reported on (slightly) biased memories, which could have harmed the reliability of the studies. However, we chose for a retrospective method because only after their induction period can teachers report on how they were supported during this period. Interviews with first-year teachers and a survey study amongst first-year teachers would have given an incomplete picture of the induction programs the teachers had been supported by. An alternative would have been to ask first-year teachers throughout

the year to report on their induction program. However, the disadvantage of this method is the highly intensive character of the method which would have made it impossible to conduct a large-scale study in the available time span.

The second limitation is the lack of a study including actual behavior. For instance, it would be interesting to validate the self-reporting of mentors by investigating how they actually perform their role of mentor. Also, it would be interesting to validate the reports of beginning teachers about the experienced influence by including actual teaching behavior. However, we did not choose to include such a study because this was not compatible with the aim to conduct a large-scale study.

The third limitation is the fact that the conclusions about the influence of induction programs on well-being and professional development are mainly based on correlations, while correlation analysis in itself does not imply a certain direction in the relationship between variables. It seems reasonable to interpret the positive correlations as an indication of an influence of the induction program on the well-being of beginning teachers and their professional development. Concluding that the well-being and the perceived influence on professional development influence the characteristics of the induction program is theoretically and logically very unlikely. Also, the results of the interview study and the results of a number of evaluation items in the survey study support our interpretations.

5.5 Suggestions for further research

Based on our current study, we suggest three topics that could be of interest for further research. First, it would be interesting to conduct further research into the relationship between induction programs and school cultures. The school culture correlated more strongly with the well-being of beginning teachers than any characteristic of induction programs. However, before concluding that it is more important for beginning teachers' well-being to invest in a supportive school culture than in an induction program, we need to gain more insight into the relation between induction programs and school culture. A variety of characteristics of induction programs correlated strongly with a supportive school culture, but precisely how they related is not clear. One can wonder if schools with a supportive school culture are more likely to invest in induction programs than schools with a less supportive school culture, or if it is the other way around: the use of induction programs could contribute to a more supportive school culture. Either way, greater insight into the relationship between induction programs and school cultures will increase our understanding of the effect that induction programs have on the well-being of beginning teachers. If schools with a strongly supportive school culture are more likely to invest in induction programs, this puts the importance of induction programs for the well-being of beginning teachers into perspective, and we could then suggest that

induction programs be used mainly in order to support the professional development of beginning teachers. With beginning teachers' state of well-being in mind, it would then be interesting as well to research just how a supportive school culture comes into being. If, in fact, induction programs contribute to a supportive school culture, then the relevance of induction programs will only increase, not only for the well-being of beginning teachers, but also for the well-being of the more experienced teachers who might experience the positive effect of a supportive school culture as well.

Furthermore, it would be interesting to further research the relationship between characteristics of induction programs and teachers' professional development. In such research other types of data could be included. Observation of what really happens in the induction program would be interesting, as well as class observation of beginning teachers to investigate their professional development. Such research would add to our research by adding more detailed information. It would also enable researching the reliability and validity of the questionnaire developed for our survey study, by relating observational data to responses on the questionnaire. Lastly, it would be interesting to further research the role of the mentor and the effect of training. Our interview study indicated that mentors are mainly focused on the concerns of teachers. It was concluded that if mentors and induction programs are more focused on the concerns of students this would lead to more elaborate support, including more attention for pedagogy and the psychological and moral development of students. It would be interesting to develop a mentor training in which attention for the concerns of students is one of the core topics and subsequently investigate the effects of the training.

5.6 Practical implications

Many schools in the Netherlands seem to use a form of induction program. Based on the current study it can be assumed that they contribute positively to the state of well-being of beginning teachers. However, most induction programs do not contribute strongly to the professional development of beginning teachers because they lack the essential characteristics for this. The results of our research thus give reason for recommendations with regard to influencing beginning teachers' professional development more positively.

Based on our research, we first recommend that induction programs are sufficiently facilitated: there have to be mentors for all new teachers, mentors need opportunities to professionalize themselves, mentors and teachers need considerable time to spend on induction program-related activities, timetables of mentors and beginning teachers have to match with the induction program, a physical space is necessary for meetings between mentors and teachers, and it is desirable that beginning teachers do not have the heavy workload that is common for experienced teachers. We recommend that most schools create more facilities. At the core of this lies

the choice of whether or not to give induction programs a high priority.

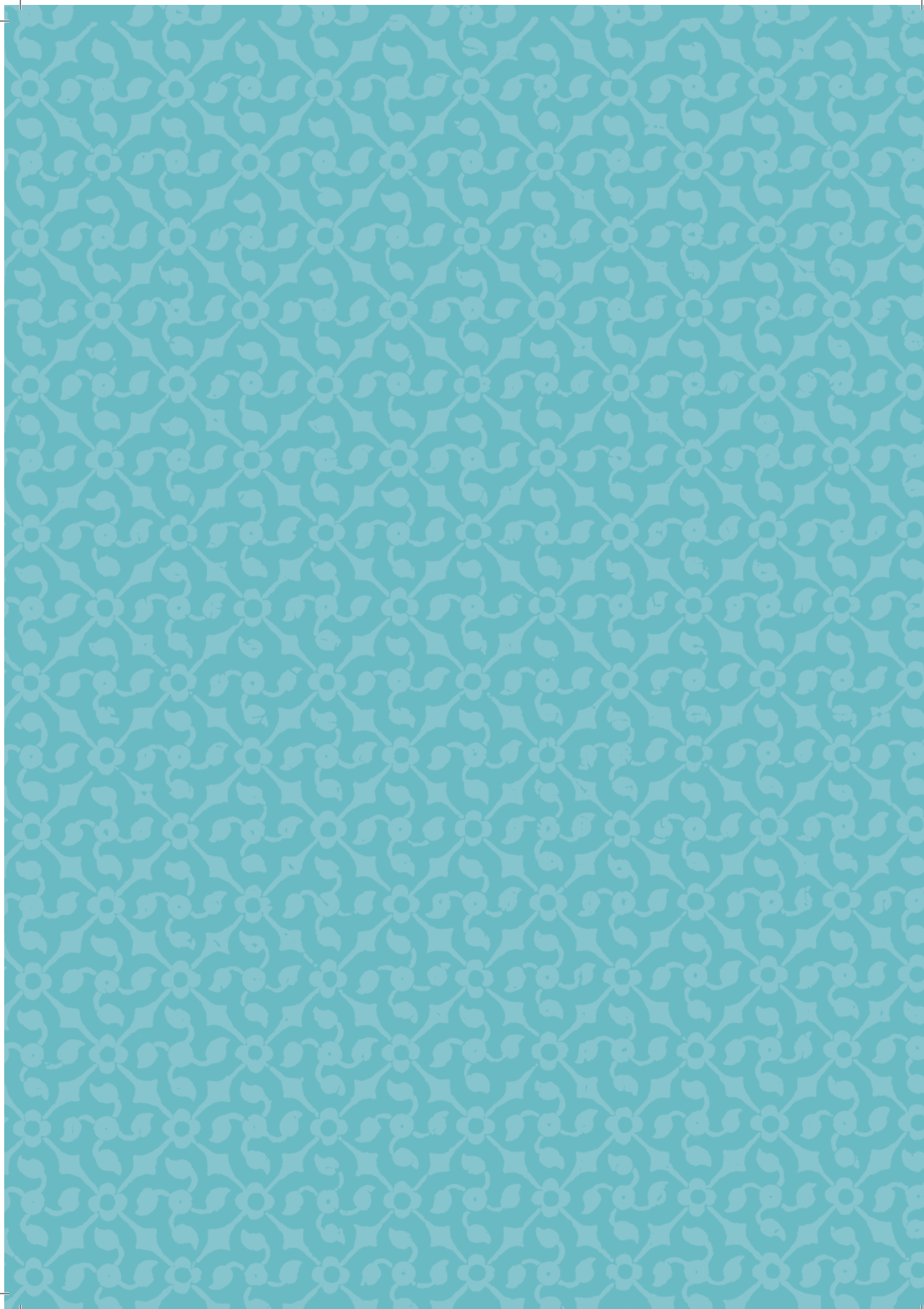
Another important point of improvement pertains to the ability of mentors to challenge beginning teachers in their professional development. To achieve this, we recommend to take this point into consideration when selecting teachers to become a mentor for beginning teachers. Besides motivation to support beginning teachers, it should be considered whether a candidate is likely to challenge beginning teachers in their professional development. For example, it could be considered whether the candidate has shown a critical or reflective attitude towards teaching and whether the candidate has shown the capability of working constructively with other teachers. In addition, it is important to acknowledge that mentoring is not an easy job. Mentors ought to be trained and provided with opportunities to professionalize in mentoring beginning teachers. To help mentors challenge beginning teachers in their professional development, it is recommended to include an assessment procedure. Assessment procedures may be considered threatening. Therefore it is important to first create a base of trust and to use a formative assessment procedure. In order to create a safe base for an assessment procedure mentors and teachers have to acknowledge that beginning teachers still have to learn many things. Beginning teachers have knowledge and skills, perhaps even new enriching knowledge, but they have not yet mastered everything that is important to be a good teacher.

A third point of improvement concerns the degree of attention for professional development, especially the attention for pedagogy. Improving the facilities and the degree to which mentors are able to challenge beginning teachers in their professional development will probably also affect the degree of attention for professional development. Moreover, in terms of professional development of mentors, attention for pedagogy and other teaching-related issues is recommended. This is in line with large-scale studies into the effectiveness of teachers' professional development that shows that content that is strongly related to the daily teaching practice is particularly effective in improving teaching and student learning. In these studies, topics that are often mentioned are (subject) pedagogy, subject content, and subject-specific learning of students (van Veen, Meirink & Zwart, 2009). Another recommendation in order to attain better attention for beginning teachers' professional development is related to the design of induction programs. Currently, schools themselves are responsible for the design of induction programs. With regard to induction programs, there is little or no cooperation with other schools or institutes. We believe it would benefit the quality of induction programs if teacher education institutes would play an active role in the development and implementation of induction programs. Beijaard (2009) also recommends that teacher education institutes and schools cooperate in designing induction programs for several reasons: (1) an active role of teacher education institutes in the design of induction programs would promote the continuity between pre-service education and induction programs; (2) teacher education institutes would fulfill in providing special expertise that schools do not have, i.e. they could play an important role in mentor training; and (3) teacher education institutes could play a role in the organization of components of induction programs, such as workshops that extend beyond individual schools.

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Appendix 1

Interview questions mentors

Induction program

- 1 What kind of support is offered to beginning teachers?
 - a What activities are included in the induction program for beginning teachers?
 - b In these activities, which topics are central?
 - c How much time do beginning teachers spend on activities related to the induction program? Do beginning teachers' time schedule include time allocated for activities related to the induction program?
 - d For how long do beginning teachers receive support by an induction program? Does this support change during this period?
 - e How does the induction program relate to the preservice teacher education program?
 - f Are the beginning teachers motivated to participate in the induction program?
 - g What facilities are offered in relation to the induction program?

- 2 Who are involved in the support of beginning teachers?
 - a What is the role of the school management in the induction program?
 - b What is your role in the induction program?
 - c How were you prepared for your role as mentor of beginning teachers?

- 3 What goals do you pursue in the support of beginning teachers?
 - a What do you consider a mentor's most important task?
 - b What do you consider the most important task of the school management in an induction program?
 - c What are important conditions for a successful induction program for beginning teachers?

- 4 What do you perceive as the influence of the induction program on:
 - a The attrition of beginning teachers?
 - b Beginning teachers' sense of well-being?
 - c Beginning teachers' professional development?

Appendix 2

Interview questions teachers

General questions

Since when have you been working as a teacher?

Since when do you work at this school?

When did you start your preservice teacher education?

When did you receive your teaching certification?

Which subject do you teach?

The induction program

- 1 What kind of support did you receive when you started working at this school?
 - a What activities were included in the support of beginning teachers?
 - b What topics received attention in these activities?
 - c How much time did you spend on activities related to the induction program?
Did your time schedule include time allocated for activities related to the induction program?
 - d For how long did you receive support by an induction program? Did this support change during this period?
 - e How did the induction program relate to your preservice teacher education program?
 - f How would you describe the school climate? Do you consider this school having a pleasant learning and working environment for beginning teachers?

Priorities in induction

- 2 What do you think is important in the support of beginning teachers?
 - a Did you miss anything related to the induction program?
 - b Do you consider any of the elements in the induction program as irrelevant?
 - c How do you learn to teach?

Influence of the induction program

- 3 Did the support and mentoring you received influence your professional development?
- 4 Did the support and mentoring you received influence your choice to keep working at this school?
- 5a Did the support and mentoring you received influence your job motivation?
- 5b Did the support and mentoring you received influence the way you handle stress?
- 5c Did the support and mentoring you received influence your professional self confidence?
- 6a Did the support and mentoring you received influence your professional development with regard to your competence related to the psychological and moral development of students?
- 6b Did the support and mentoring you received influence your professional development with regard to your competence related to interpersonal relations with students
- 6c Did the support and mentoring you received influence your professional development with regard to your competence related to subject pedagogy?
- 6d Did the support and mentoring you received influence your professional development with regard to your competence related to reflection?
- 6e Did the support and mentoring you received influence your professional development with regard to your competence related to collaboration?

Appendix 3

Survey ‘Support for beginning teachers’

Part A. Facilities and organization of the induction program

How was the induction program at your school organized and facilitated?

For this part of the questionnaire, it is possible to choose one of the following answers:

- 1 = Applies to me not at all
- 2 = Applies to me to a certain extent
- 3 = Applies to me
- 4 = Applies to me totally

	1	2	3	4
1 It was arranged for me that I had a mentor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 As a beginning teacher I had dispensation from certain tasks such as supervising students during breaks, or substituting for a colleague	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 My schedule was matched with activities related to the induction program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4 At school, a physical space was allocated for support of beginning teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5 Beginning teachers received extra time for induction activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6 At our school, support for beginning teachers was well-organized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7 If I wanted to, I could receive support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part B. Formats of support

In this part of the questionnaire is asked whether you participated in various formal induction activities in the first year that you were teaching. You may choose the answer that best suits your experience.

- | | | |
|---|---|--|
| 1 | Introduction meeting for beginning teachers | <input type="radio"/> no
<input type="radio"/> yes, this lasted 0-2 hours
<input type="radio"/> yes, this lasted 2-4 hours
<input type="radio"/> yes, this lasted more than 4 hours |
| 2 | Class visit of a mentor, including evaluation | <input type="radio"/> none
<input type="radio"/> 1-2 times
<input type="radio"/> 3-5 times
<input type="radio"/> more than 5 times |
| 3 | Observing lessons of colleagues | <input type="radio"/> none
<input type="radio"/> 1-2 times
<input type="radio"/> 3-5 times
<input type="radio"/> more than 5 times |
| 4 | Class visit including videotaping of the lesson and evaluation | <input type="radio"/> none
<input type="radio"/> 1-2 times
<input type="radio"/> 3-5 times
<input type="radio"/> more than 5 times |
| 5 | Conversations with a mentor from the same subject department without class visit | <input type="radio"/> none
<input type="radio"/> 1-3 hours
<input type="radio"/> 4-20 hours
<input type="radio"/> more than 20 hours |
| 6 | Conversations with a mentor from a different subject department without class visit | <input type="radio"/> 1-3 hours
<input type="radio"/> 4-20 hours
<input type="radio"/> more than 20 hours |
| 7 | Meetings for beginning teachers | <input type="radio"/> none
<input type="radio"/> 1-2 times
<input type="radio"/> 3-6 times
<input type="radio"/> more than 6 times |
| 8 | Other formats of support, namely,..... | <input type="radio"/> none
<input type="radio"/> 1-5 hours
<input type="radio"/> 6-10 hours
<input type="radio"/> more than 10 hours |

Part C. Topics

How much attention did the following topics receive in the induction program? You may choose the answer that best suits your experience. If a certain topic received no attention, only because you already mastered this, you may choose the answer 'o', which refers to 'Irrelevant because I already mastered this'.

- o = Irrelevant because I already mastered this
- 1 = Not
- 2 = Sometimes
- 3 = Quite regularly
- 4 = Often
- 5 = Very often

		o	1	2	3	4	5
1	Different ways of applying various teaching methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Creating a good atmosphere among students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Dealing with a bold student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Signaling a personal problem of a student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	Assessing what students understand during a lesson	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	Designing a good lesson	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	Paying attention to all students in the classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	Dealing with students' insecurities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	Teaching difficult subject matter in a clear way	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	Offering students a clear structure of what is allowed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	Possible responses and measures to adjust students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	The role of the teacher as tutor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part D. Practical matters and personal care

How much attention did the following topics receive in the induction program?

- 1 = Not at all
 2 = A little
 3 = Sufficient
 4 = Very much

	1	2	3	4
1 My mentor reminded me of important data such as days to hand in grades or meetings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 Explanation was provided about school rules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 In the induction program, there was attention for personal issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4 In the induction program, there was attention for practical matters such as how does the copy machine work and where can I find certain materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5 In the support there was attention for typical problems of new teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6 My mentor explained, who I could turn to for various questions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7 In the induction program there was attention for the well-being of new teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8 In the induction program was attention for handling the workload	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

.....

Part E. The mentor

How did you experience the support of your mentor? Please indicate how strongly you agree with the following statements.

- 1 = Disagree totally
2 = Disagree
3 = Not disagree/ not agree
4 = Agree
5 = Agree totally

	1	2	3	4	5
1 It was difficult to admit to my mentor that I was not good at something	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 My mentor challenged me to improve myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 My mentor was able to activate me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4 My mentor often told me that I did well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5 I felt at ease with my mentor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6 I was able to discuss difficulties without having fear of being evaluated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7 My mentor could very well pinpoint out the relevant problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8 My mentor was critical	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9 My mentor was personally involved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10 I could always ask my mentor anything	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11 Often I could not understand my mentor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12 My mentor never praised me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Part F. School culture

How did you experience the climate among colleagues, apart from the support of beginning teachers? Please indicate how strongly you agree with the following statements.

- 1 = Disagree totally
 2 = Disagree
 3 = Not disagree/ not agree
 4 = Agree
 5 = Agree totally

	1	2	3	4	5
1 In the first year I was teaching, I was supported by the school's management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 Colleagues helped me quickly to find my way at school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 If I experienced difficulties, I was supported by an experienced colleague	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4 Among beginning teachers there was a strong feeling of solidarity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5 I could always ask my colleagues about anything	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6 If I had a problem I could not easily ask for help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7 If it were necessary, I had always someone to turn to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Part G. Your experience of the induction program

How did you experience the induction program? You may answer how strongly you agree with the following general statements about support for beginning teachers and the statements about the support you received.

- 1 = Disagree totally
2 = Disagree
3 = Not disagree/ not agree
4 = Agree
5 = Agree totally

General statements	1	2	3	4	5
1 As a teacher you have to find out for yourself what works well, a mentor cannot really help you with this	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 An induction program helps you to become a better teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 With support you learn faster how to teach	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4 Without the support of an induction program one learns just as much as with the support of an induction program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5 An induction program makes the first year more pleasant	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6 An induction program in the first year of teaching is important for one's self confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7 An induction program makes you feel at home in the school more easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Your perception of the received support

In my first year of teaching		1	2	3	4	5
1	I missed the support of an induction program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	I received too much support of an induction program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I received good support of an induction program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Your perception of your work:

1	I like my work very much	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	The next few years, I like to keep working as a teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	I regret I once made the choice of becoming a teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

.....

Part H. Your experience in your first year of teaching

Please indicate how you experienced your first year of teaching.

In my first year of teaching	1	2	3	4	5
1 I felt welcome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 I felt at ease	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 I felt stressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4 I felt insecure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5 I felt lost	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6 I felt supported	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7 I felt appreciated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8 I felt at home.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9 I was satisfied with my teaching practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10 I felt alone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11 I felt equal to more experienced colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12 I felt taken seriously by my colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Because of the induction program	1	2	3	4	5
1 I learned to keep better order in the classroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 I was better able to reflect critically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 I improved to organize my lessons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

.....

-
- | | | | | | | |
|----|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 4 | I learned to deal with sensitivities of students better | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5 | I improved my interpersonal relationships with students | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6 | I was better able to help students understand the subject matter | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7 | I was more able to motivate students | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8 | I started paying more attention to students' understanding of the subject matter | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9 | I became a better teacher | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10 | I learned more efficiently how to teach | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
-

Part I. General questions

The last part of the questionnaire consists of a number of general questions.

Please answer these questions by choosing the answer(s) that best suits your experience.

- 1 Did you have a teaching certificate when you actually started teaching?
(You may choose more than one answer)
 - ☐ No, I had not yet started a preservice teaching education program
 - ☐ No, I was still a student-teacher at a second degree preservice teaching education program
 - ☐ No, I was still a student-teacher at a first degree preservice teaching education program
 - ☐ Yes, I had a second degree teaching certificate
 - ☐ Yes, I had a first degree teaching certificate
 - ☐ Otherwise, namely

- 2 Did you have teaching experience as an intern before teaching independently?
 - ☐ No
 - ☐ Yes, at which I did not receive mentoring from the school
 - ☐ Yes, at which I received some mentoring from the school
 - ☐ Yes, at which I received considerable mentoring from the school
 - ☐ Yes, at which I received extended mentoring from the school

- 3 Did you feel prepared when you started teaching independently?
 - ☐ I felt prepared not at all
 - ☐ I felt prepared a little
 - ☐ I felt prepared fairly well
 - ☐ I felt prepared very well

- 4 How many colleagues did you have in your subject department when you started teaching?
 - ☐ I had no colleagues in my subject department
 - ☐ I had less than three colleagues in my subject department
 - ☐ I had (more than) three colleagues in my subject department

- 5 What level of education did you teach in your first year of teaching?
(You may choose more than one answer)
 - ☐ Pre-vocational secondary education
 - ☐ Lower level pre-university secondary education
 - ☐ Higher level pre-university secondary education

7 What kind of job did you have when you started to teach?

- I worked full-time at one school
- I worked full-time at several schools
- I worked part-time at one school
- I worked part-time at several schools

8 How many years have you been teaching independently?

- ☐ (Less than) 1 year
- ☐ 2 years
- ☐ 3 years
- ☐ 4 years
- ☐ More than 4 years

9 What is your age

10 What is your gender?

- Man
- Woman

Space for remarks

Thank you so much for your collaboration

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Summary

This thesis reports on the influence of induction programs on beginning teachers' well-being and professional development, and the essential characteristics of an induction program. These topics were explored by means of an interview study and large scale survey study.

Chapter 1 reports on the background of the studies. An induction program is defined as a more or less formalized program that is aimed to support beginning teachers in their first years of teaching after their pre-service education.

A still increasing number of schools uses an induction program. An important goal of using an induction program is to support beginning teachers in their professional development. After pre-service education, beginning teachers still have to learn many things. It is relevant to support teachers in their professional development because the way they develop in their first years is highly determining for their further teaching career. By using an induction program, schools aim to help beginning teachers develop as professionals and prepare them for lifelong learning.

A second important goal of induction programs is to contribute to beginning teachers' well-being, especially because the transitional phase of being a student to becoming a teacher is difficult. This is not only relevant for beginning teachers, but also for schools. With induction programs, schools attempt to prevent beginning teachers from leaving the profession as a consequence of a negative well-being. In this way, induction programs help to prevent (or to solve) a teacher shortage and create staff stability.

Several studies have shown that induction programs contribute to beginning teachers' well-being. Also they can contribute to beginning teachers' professional development, but this is not a guarantee. Many of these studies can be characterized as small-scale studies, with hardly no comparison between various induction programs and only limited attention for other factors that may influence beginning teachers' well-being or professional development. As a consequence there is only limited insight in the specific elements of induction programs that are responsible for the found results. Therefore, the current study focuses on the specific elements of induction programs, and includes a large-scale study.

Chapter 2 reports on the interview study. Because of a lack of systematic knowledge on the way beginning teachers in the Netherlands are supported with an induction program, first an interview study was conducted. Main goal of the interview study was to get an overview of the various elements of an induction program. The results of this study formed the basis for the questionnaire. Based on the interview study the following research questions were answered:

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- 1 What elements of an induction program can be distinguished?
 - 2 How are beginning teachers in the Netherlands supported with an induction program?
 - 3 What do mentors report on their ideas and actions concerning their role as mentor of beginning teachers?
 - 4 What do teachers report on their experiences of the influence of the induction program?

In the interview study, 12 secondary schools participated. From these schools, 12 mentors and 22 teachers were interviewed. All participating schools used a form of induction program. In the selection of schools, variation concerning the nature and intensity of the induction programs was relevant, next to characteristics as the size of the school, the level of education offered by the school (pre-vocational secondary education to pre-university secondary education), the demography of the school (urban or suburban) and whether the school was related to a teacher education institute.

During in-depth-interviews mentors were asked about the content of the induction program, their role in the induction program, and their perception of the influence of the induction program on beginning teachers. Teachers were asked about the way they had been supported by the induction program, their perceptions of what is important in an induction program and the influence they experienced of the induction program. The interviews lasted one to one and a half hour and were interpreted in a qualitative-interpretative manner.

Based on the interviews, five main elements of an induction program were identified: (1) the intensity of the induction program, (2) the facilities offered in relation to the induction program, (3) the formats of support being used in the induction program, (4) the content of the induction program, and (5) the mentor.

All schools participating in the interview study provided formal guidance for beginning teachers, though they differed in intensity. Most schools used an induction program with a low intensity, but a number of schools used an induction program with a moderately high or even very high intensity. In general, teachers were supported by an induction program only in their first year of teaching.

The facilities were strongly related to the induction program's intensity. Mentors received the required amount of hours to spend on support of beginning teachers. Teachers usually received dispensation from various tasks such as substituting for colleagues or supervising students during breaks. At some schools, beginning teachers also received hours to spend on activities related to the induction program.

Formats that were used often were introduction meetings, individual support by an experienced teacher (with sometimes class visits or videotaping lessons), and group meetings for beginning teachers in which they could share their experiences. Formats that were hardly used,

concerned specific training courses and classroom observations of experienced colleagues. In induction programs, considerable attention was paid to emotional support, practical information and professional development. The emphasis in the programs often laid on emotional support and helping teachers with difficulties in classroom management. Few teachers reported of thorough attention for professional development, which refers to attention for classroom management, pedagogy and the psychological and moral development of students. The interviews with teachers showed that mentors were able to create a base of trust. Also, they generally offered sufficient emotional support. However, teachers differed in their perceptions about the degree to which their mentor was able to challenge them in their professional development.

With regard to the role of the mentors in the induction program, the interviews revealed two relevant themes. The first theme concerned the way mentors tried to support beginning teachers in their professional development. Mentors perceived their role as one that aims to stimulate the reflection process of beginning teachers, mainly by asking questions. However, few mentors seemed to do so. Most mentors indicated that they indeed started their conversation by asking the teacher a question, but already soon tended to give their advice and opinion. The second theme concerned the mentor's focus. Most mentors participating in the interview study appeared strongly focused on the concern of teachers to maintain order in the classroom. Few mentors on the other hand, seemed more focused on the concerns of students. Besides attention for classroom management and the well-being of beginning teachers, these mentors were strongly focused on the learning of students and a good interpersonal relationship between student and teacher, which led to more attention for pedagogy and the psychological and moral development of students.

Virtually all teachers reported on a positive influence of the induction program. They were most positive about the induction program's influence on their well-being. In several ways induction programs contributed to beginning teachers' self-confidence, the bonding with other teachers and the feeling of being supported and being welcome in the school. Remarkable was that both teachers from low intensity programs and high intensity programs reported a positive influence on their well-being.

Also with regard to their professional development, teachers reported a positive influence. However, often teachers indicated that support only had 'accelerated' their professional development. Because of the induction program, teachers had learned several tricks faster than they would have learned on their own. For a number of teachers, the induction program had a larger influence. These teachers indicated that the support by the induction program had had an effect on their perception of themselves, their students, and their lessons.

The survey study is reported on in chapter 3 and 4. The survey study investigated on a larger

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scale how beginning teachers in the Netherlands are being supported by an induction program. In addition, the study was aimed at gaining further insight into the relationship between characteristics of an induction program and the influence of an induction program on the well-being and the professional development of beginning teachers.

Central in **chapter 3** is the relationship between the various characteristics of an induction program and beginning teachers' well-being. The following research questions were answered:

- 1 What is the degree of the state of well-being of beginning teachers?
- 2 How are beginning teachers in the Netherlands supported with an induction program?
- 3 How do characteristics of the induction program relate to the well-being of beginning teachers?

Per email, approximately 1200 teachers from secondary schools were asked to participate in the study. Three hundred and sixteen teachers responded to the invitation and filled out the online questionnaire. The questionnaire included 103 items with which teachers were asked about the characteristics of the induction program, the school culture, their perception about the induction program they had been supported by, their well-being in their first year of teaching, and the experienced influence of the induction program on their professional development. Also, teachers were asked about a number of personal and contextual variables such as previous working experience, and the subject department they were teaching in.

A part of the teachers (21%) reported a negative well-being in their first year of teaching, but most teachers experienced a positive well-being in their first year of teaching. They felt appreciated by colleagues, did not have the feeling of being left alone, and felt self-confident.

The results of the survey study confirmed the results of the interview study that many beginning teachers in the Netherlands are supported by an induction program. Most induction programs are characterized by a moderate intensity and limited facilities. In these programs there is attention for emotional support, practical matters and the professional development of beginning teachers (under which, attention for pedagogy, classroom management and the psychological and moral development of students). Most attention is given to emotional support and classroom management. Teachers were positive about their mentor, especially about the supportiveness of their mentor, and the base of trust they had with their mentors.

Most elements of an induction program appeared to correlate positively with the degree of well-being of beginning teachers. This indicates that induction programs positively influence the well-being of beginning teachers. Important characteristics of an induction program to contribute to the well-being of beginning teachers are the facilities offered in relation to the induction program, the attention for emotional support, and a base of trust between mentor

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and teacher. Most important is the degree to which the mentor is supportive. Remarkable was that the school culture correlated more strongly with the degree of well-being of beginning teachers than any other characteristic of an induction program. The degree to which there is a supportive school culture thus seems to be even more relevant for beginning teachers' well-being than an induction program. However, before drawing any final conclusions on this, more insight is required into the causal relationship between the school culture and the induction program.

Chapter 4 reports on the relationship between characteristics of an induction program and the professional development of beginning teachers. The research questions answered in this chapter are:

- 4 How do beginning teachers experience the influence of an induction program on their professional development?
- 5 How can differences in experienced influence of the induction program on professional development be explained?
- 6 What are the characteristics of induction programs that teachers experience as influential on their professional development?

The results showed that most beginning teachers experienced little influence of the induction program on their professional development. Only 14 % of the respondents indicated they experienced a strong influence on their professional development. Nevertheless, teachers were satisfied with the support they had received.

Regression analysis showed that differences in experienced influence of induction programs on professional development to a high degree could be explained by differences between induction programs. This indicates that induction programs can be relevant for beginning teachers' professional development, if certain essential characteristics are included. The most important variable explaining differences in experienced influence on the professional development appeared the degree to which the mentor is able to challenge beginning teachers in their professional development. Other relevant variables are the degree of attention for topics related to professional development, offered facilities, the intensity of the induction program, the degree of attention for emotional support and the degree to which the mentor is supportive. The last two variables seem not strongly related to beginning teachers' professional development. The fact that these come forward in the regression analysis and strongly correlated with the experienced influence on the professional development indicates that attention for emotional support is a condition for an induction program to contribute to beginning teachers' professional development.

The strong correlations between characteristics of an induction program and the experienced

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influence of induction programs on the professional development gave rise to deeper analyses of the characteristics of induction programs that are experienced as influential on the professional development. Therefore, average induction programs were compared with induction programs that were experienced as strongly influential on the professional development. Average and influential induction programs had in common that they consisted of a combination of formats of support such as an introduction meeting, individual support of a mentor, group meetings for beginning teachers, and training courses. Also the intensity of influential induction programs was comparable to the intensity of an average induction program. However, the programs differed strongly concerning the degree of facilities. Influential induction programs were well organized and included good facilities. A second large difference referred to the degree of attention for the various topics. Attention for practical matters, emotional support, and especially topics related to professional development received more attention in influential induction programs. However, the largest difference concerned the mentor. Mentors in influential induction programs received higher scores for the degree to which they were able to create a base of trust, the degree to which they were supportive, and especially, the degree to which they were able to challenge a teacher in his or her professional development.

Chapter 5 describes the conclusions and discussion. The current study confirms the increase in the use of induction programs. A few decades ago, it was rather common to let beginning teachers start with only a word of welcome. Nowadays, most schools in the Netherlands have implemented induction programs. Another conclusion is that the emphasis in induction programs is often placed on emotional support and helping beginning teachers overcoming problems in classroom management. There is, however, limited attention for topics relating to pedagogy and the psychological and moral development of students. A possible explanation for this is that most mentors seem strongly focused on the daily, urgent concerns and problems of beginning teachers. They try to support teachers and help them with their questions and problems which often relate to classroom management. The results of the interview study suggest that if mentors were focused more strongly on the learning of students, there would be more attention for pedagogy and the psychological and moral development of students. The focus of induction programs on emotional support and classroom management concurs with the positive influence that teachers experience on their well-being. For this, it seems of little importance whether an induction programs has a high intensity. The most essential characteristic of an induction program that contributes to the well-being of beginning teachers is the degree to which the mentor is supportive. Lastly, our study indicates a limited influence of induction programs on beginning teachers' professional development. Most teachers experience only little influence of the induction program on their professional development. However, the experienced influence strongly relates to the induction programs' characteristics. The results of the study suggest that

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induction programs would have a considerable influence on beginning teachers' professional development when they are better organized and facilitated, when there is more attention for topics related to professional development, and when mentors would challenge teachers in their professional development.

Like previous research, the current study shows that induction programs contribute to beginning teachers well-being and sometimes to their professional development. However, the current study provides more insight into the relevance of specific characteristics of an induction program. With regard to beginning teachers' well-being as well as their professional development, it appears that the intensity of the induction program is of less importance than generally presumed. On the other hand, the mentor's characteristics are very important. Specifically with regard to beginning teachers' well-being it is relevant that mentors are supportive. This is also important with regard to professional development, though for professional development it is more relevant that mentors are capable of challenging beginning teachers in their professional development. The literature shows a differentiated picture on the influence of induction programs on beginning teachers' professional development. The current study confirms this picture and shows that differences in results can probably largely be explained by differences between induction programs.

Based on the current research, three recommendations are provided to improve induction programs' influence on beginning teachers' professional development. Firstly, it is recommended to create more facilities for the induction of beginning teachers. Secondly, with regard to mentor selection, it is recommended to take into account the capability of candidates to challenge teachers in their professional development. In relation to this it is relevant, amongst others, to invest in preparation and schooling of mentors. Also it can be recommended to include assessment-procedures in induction programs, which help mentors providing better guidance in teachers' professional development. Thirdly, it is recommended to put more emphasis on the professional development of teachers, preferably in collaboration with pre-service teacher education programs.

Nederlandse samenvatting

Dit proefschrift gaat over de invloed van inductieprogramma's op het welbevinden en de professionele ontwikkeling van beginnende docenten, en welke specifieke kenmerken van inductieprogramma's daarvoor belangrijk zijn. Hiernaar is onderzoek gedaan met een interviewstudie en een grootschalige vragenlijststudie.

Hoofdstuk 1 gaat in op een aantal achtergronden van het onderzoek. Een inductieprogramma wordt omschreven als een min of meer formeel geregeld begeleidingsprogramma vanuit de school, om beginnende docenten te ondersteunen in hun eerste jaren van de zelfstandige beroepsuitoefening.

Steeds meer scholen gebruiken een inductieprogramma. Een belangrijk doel hierbij is beginnende docenten te ondersteunen in hun professionele ontwikkeling. Na de lerarenopleiding moeten beginnende docenten nog veel leren. Het is belangrijk docenten hierbij te ondersteunen, omdat de manier waarop zij zich in hun eerste jaren ontwikkelen in hoge mate bepalend is voor hun verdere carrière. Met inductieprogramma's wordt dan ook beoogd beginnende docenten te helpen zich te ontwikkelen tot professionals en ze voor te bereiden op levenslang leren.

Voor veel docenten is de overgang van student naar docent zwaar. Het tweede belangrijke doel van inductieprogramma's is bij te dragen aan het welbevinden van beginnende docenten. Dit is niet alleen belangrijk voor docenten, maar ook voor scholen. Met inductieprogramma's proberen scholen te voorkomen dat docenten als gevolg van een negatief welbevinden het beroep willen verlaten. Op deze manier dragen inductieprogramma's ertoe bij een lerarentekort te voorkomen (of op te lossen) en stabiliteit in de staf te creëren.

Uit verschillende onderzoeken blijkt dat inductieprogramma's over het algemeen bijdragen aan het welbevinden van beginnende docenten. Ook kunnen ze bijdragen aan de professionele ontwikkeling van beginnende docenten, maar dat is niet vanzelfsprekend. Veel onderzoek naar de invloed van inductieprogramma's op het welbevinden of de professionele ontwikkeling van beginnende docenten kan worden gekarakteriseerd als kleinschalig. In deze onderzoeken is over het algemeen nauwelijks of geen sprake van vergelijking van verschillende inductieprogramma's en is er slechts beperkte aandacht voor andere factoren die van invloed kunnen zijn. Er is daardoor weinig bekend over welke specifieke elementen van inductieprogramma's essentieel zijn voor gevonden effecten van die programma's. In het huidige onderzoek is getracht tegemoet te komen aan genoemde bezwaren door de specifieke elementen te onderzoeken en een grootschalige studie uit te voeren.

Hoofdstuk 2 gaat over de interviewstudie. Gezien de geringe systematische kennis over de manier waarop docenten in Nederland begeleid worden via inductieprogramma's is eerst een interviewstudie uitgevoerd om hier meer inzicht in te krijgen. Een belangrijk doel van de interviewstudie was een overzicht te krijgen van de verschillende elementen van een inductieprogramma. De resultaten van deze studie vormden de basis voor de vragenlijststudie. Met de interviewstudie werden de volgende onderzoeksvragen beantwoord:

- 1 Welke elementen van een inductieprogramma kunnen worden onderscheiden?
- 2 Hoe worden beginnende docenten in Nederland ondersteund met een inductieprogramma?
- 3 Wat rapporteren mentoren over hun ideeën en acties betreffende hun rol als mentor van beginnende docenten?
- 4 Wat rapporteren docenten over de invloed die zij hebben ervaren van het inductieprogramma?

Aan de interviewstudie namen 12 mentoren en 22 docenten deel, afkomstig van 12 middelbare scholen. Alle deelnemende scholen beschikten over een vorm van een inductieprogramma. Bij de selectie van de scholen is een zo groot mogelijke variatie nagestreefd wat betreft de aard en omvang van inductieprogramma's. Daarnaast is variatie nagestreefd wat betreft kenmerken van de school zoals de grootte van de school, het type onderwijs dat de school biedt (VMBO tot Gymnasium), de plaats van de school (stad of platteland) en of de school verbonden was aan een lerarenopleiding of niet.

In diepte-interviews werd de mentoren gevraagd naar de inhoud van het inductieprogramma op hun school, hun rol in het inductieprogramma en hun perceptie van de invloed van het inductieprogramma op beginnende docenten. Docenten werd gevraagd naar de wijze waarop zij begeleid zijn in het kader van het inductieprogramma, hun ideeën over begeleiding van beginnende docenten en de invloed die zij hebben ervaren van het inductieprogramma. De interviews duurden één tot anderhalf uur en werden op een kwalitatief-interpretatieve wijze geanalyseerd.

Op basis van de interviews konden vijf hoofdelementen van een inductieprogramma worden onderscheiden: (1) de intensiteit van het inductieprogramma, (2) de faciliteiten die geboden worden in relatie tot het inductieprogramma, (3) de vormen van begeleiding tijdens het inductieprogramma, (4) de inhoud van het inductieprogramma, en (5) de mentor.

Alle scholen die deelnamen aan de interviewstudie voorzagen in meer of mindere mate in een vorm van formele begeleiding van beginnende docenten. De meeste scholen die deelnamen aan het onderzoek beschikten over een inductieprogramma met een lage intensiteit, maar op een aantal scholen was sprake van een inductieprogramma met een redelijk hoge tot zelfs zeer

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hoge intensiteit. Over het algemeen werden docenten alleen in het eerste jaar door middel van een inductieprogramma begeleid.

De faciliteiten die geboden werden in relatie tot het inductieprogramma hingen sterk samen met de intensiteit van het programma. Mentoren kregen het benodigde aantal uren om aan begeleiding te besteden en de docenten kregen meestal vrijstelling van verschillende taken, zoals invallen voor afwezige docenten of surveilleren in de pauze. Op sommige scholen waren voor docenten ook uren gereserveerd voor begeleiding.

Alle deelnemende scholen beschikten over inductieprogramma's met verschillende vormen van begeleiding. Veel gebruikte vormen van begeleiding waren introductiebijeenkomsten, individuele begeleiding door ervaren docenten (met of zonder lesbezoek of video-opname) en groepsbijeenkomsten (intervisie) voor beginnende docenten om ervaringen te delen. Vormen van begeleiding die minder vaak gebruikt werden, zijn vaardigheidstrainingen en lesobservatie door de beginnende docent bij collega's. Deze vormen kwamen vooral voor in inductieprogramma's met een hoge intensiteit.

In de inductieprogramma's werd aandacht besteed aan emotionele ondersteuning, praktische informatie en professionele ontwikkeling. De nadruk in de programma's lag vaak op de emotionele ondersteuning en het helpen bij problemen met klassenmanagement. Weinig docenten rapporteerden over verregaande aandacht voor professionele ontwikkeling, waarbij naast klassenmanagement, vakdidactiek en pedagogiek belangrijke onderwerpen zijn.

Op basis van de interviews met docenten kon worden geconcludeerd dat begeleiders over het algemeen goed in staat waren een basis van vertrouwen te scheppen. Ook boden zij veelal goede emotionele ondersteuning. Docenten waren echter verdeeld over de mate waarin hun begeleider in staat was hen uit te dagen in hun professionele ontwikkeling.

Met betrekking tot hun rol in het inductieprogramma rapporteerden begeleiders vooral over twee relevante thema's. Het eerste thema betrof de manier waarop mentoren de professionele ontwikkeling van beginnende docenten proberen te ondersteunen. Over het algemeen waren de mentoren van mening dat de rol van de begeleider het stimuleren van het reflectieproces van beginnende docenten zou moeten zijn, vooral door het stellen van vragen. Weinig mentoren leken dit echter in praktijk te brengen. De meeste mentoren gaven aan dat zij weliswaar beginnen met een vraag aan de docent, maar al snel overgaan tot het geven van hun mening en advies. Het tweede thema dat naar voren kwam betrof de focus van de begeleider. De meeste begeleiders die deelnamen aan de interviewstudie bleken bij hun begeleiding vooral gericht te zijn op het belang dat de docent heeft bij het handhaven van de orde in de klas. Enkele begeleiders daarentegen leken meer gericht op het belang van leerlingen. Naast aandacht voor klassenmanagement en het welbevinden van de beginnende docent waren deze begeleiders sterker gericht op het leren van de leerlingen en op goed interpersoonlijk contact tussen leerling en leraar, wat zich vertaalde in meer aandacht voor vakdidactiek en pedagogiek.

Vrijwel alle docenten rapporteerden over een positieve invloed van het inductieprogramma. Het meest positief waren de reacties van docenten over de invloed van het inductieprogramma op hun welbevinden. Op verschillende manieren droegen inductieprogramma's bij aan het zelfvertrouwen van docenten, de band met andere beginnende docenten, het gevoel welkom te zijn in de school en ondersteund te worden. Opvallend hierbij was dat docenten in inductieprogramma's met zowel een lage als hoge intensiteit over het algemeen over een positieve invloed op hun welbevinden rapporteerden.

Ook in relatie tot de professionele ontwikkeling rapporteerden de docenten een positieve invloed. Vaak gaven de docenten echter aan dat begeleiding slechts 'versnellend' had gewerkt. Door het inductieprogramma leerden docenten bepaalde handigheidjes en trucjes eerder dan wanneer ze geen begeleiding zouden hebben gehad. Op een aantal docenten had het inductieprogramma een grotere invloed. Deze docenten gaven aan dat de begeleiding via het inductieprogramma effect had gehad op hun beeld van zichzelf, hun leerlingen en hun lessen.

De vragenlijststudie is gerapporteerd in hoofdstuk 3 en 4. Met de vragenlijststudie is op grotere schaal onderzocht hoe beginnende docenten in Nederland begeleid worden door middel van een inductieprogramma. Daarnaast richtte deze studie zich op het verkrijgen van meer inzicht in de relatie tussen kenmerken van een inductieprogramma en de invloed van een inductieprogramma op het welbevinden en de professionele ontwikkeling van beginnende docenten.

In **hoofdstuk 3** staat de relatie tussen inductieprogramma's en het welbevinden van beginnende docenten centraal. De volgende onderzoeksvragen werden beantwoord:

- 1 Wat is de mate van welbevinden onder beginnende docenten?
- 2 Hoe worden beginnende docenten in Nederland ondersteund met een inductieprogramma?
- 3 Hoe hangen kenmerken van een inductieprogramma samen met het welbevinden van beginnende docenten?

Per e-mail werd ongeveer 1200 docenten uit het voortgezet onderwijs gevraagd deel te nemen aan het onderzoek. 316 docenten reageerden op deze oproep en vulden via internet de vragenlijst in. De vragenlijst bevatte 103 items waarmee gevraagd werd naar de kenmerken van de formele begeleiding die zij in het eerste jaar na de lerarenopleiding vanuit de school hadden ontvangen, de schoolcultuur, hun mening over (de ontvangen) formele begeleiding vanuit de school, hun welbevinden tijdens het eerste jaar van lesgeven, en de invloed die zij hebben ervaren van het inductieprogramma op hun professionele ontwikkeling. Tevens werd hen gevraagd naar diverse persoonlijke en contextuele variabelen zoals eerdere werkervaringen en het vak waarin ze lesgaven.

Een deel van de docenten dat deelnam aan de vragenlijststudie (21%), rapporteerde een negatief welbevinden in het eerste jaar van de zelfstandige beroepsuitoefening, maar de meeste

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docenten rapporteerden een positief welbevinden in het eerste jaar. Zij voelden zich gewaardeerd door collega's, hadden niet het gevoel er alleen voor te staan en beschikten over voldoende zelfvertrouwen.

Evenals de resultaten van de interviewstudie, leidden de resultaten van de vragenlijststudie tot de conclusie dat veel beginnende docenten in Nederland begeleid worden via een vorm van een inductieprogramma. De meeste inductieprogramma's kenmerken zich door een matige intensiteit en beperkte faciliteiten. Er is in deze programma's aandacht voor emotionele ondersteuning, praktische zaken en de professionele ontwikkeling van beginnende docenten (waaronder aandacht voor vakdidactiek, klassenmanagement, en pedagogiek). De meeste aandacht gaat uit naar emotionele ondersteuning en klassenmanagement. Docenten waren overwegend positief over hun begeleiders, vooral over de geboden ondersteuning en de vertrouwensbasis die zij hadden met hun begeleiders.

De meeste elementen van inductieprogramma's bleken positief te correleren met het welbevinden van beginnende docenten. Dit duidt erop dat inductieprogramma's een positieve invloed hebben op het welbevinden van beginnende docenten. Belangrijke kenmerken van een inductieprogramma die bijdragen aan het welbevinden van beginnende docenten hebben betrekking op de faciliteiten die geboden worden in relatie tot het inductieprogramma, de aandacht voor emotionele ondersteuning en de goede vertrouwensbasis tussen begeleider en docent. Het meest belangrijk is de mate waarin de begeleider zich ondersteunend opstelt. Opvallend was dat de schoolcultuur sterker correleerde met het welbevinden van beginnende docenten dan enig kenmerk van inductieprogramma's. De mate waarin er een ondersteunende schoolcultuur heerst, lijkt dus nog belangrijker voor het welbevinden van beginnende docenten dan een inductieprogramma. Alvorens hier echter definitieve conclusies aan te verbinden, is het nodig meer inzicht te krijgen in de relatie tussen de schoolcultuur en het inductieprogramma. Het onderzoek laat namelijk zien dat er een positieve samenhang is tussen de mate van een ondersteunende schoolcultuur en verschillende kenmerken van het inductieprogramma, maar geeft geen inzicht in het causale verband hiertussen.

Hoofdstuk 4 gaat over de relatie tussen inductieprogramma's en de professionele ontwikkeling van beginnende docenten. Hierbij zijn de volgende onderzoeksvragen aan de orde:

- 4 Hoe ervaren beginnende docenten de invloed van een inductieprogramma op hun professionele ontwikkeling?
- 5 Hoe kunnen verschillen in ervaren invloed van het inductieprogramma op de professionele ontwikkeling verklaard worden?
- 6 Wat zijn kenmerken van inductieprogramma's die docenten als invloedrijk op hun professionele ontwikkeling ervaren?

Uit de resultaten bleek dat de meeste beginnende docenten weinig invloed van het inductieprogramma op hun professionele ontwikkeling hebben ervaren. Slecht 14% van de respondenten gaf aan een sterke invloed op de professionele ontwikkeling te hebben ervaren. Desondanks waren de docenten overwegend tevreden over de begeleiding die zij hebben ontvangen.

Regressieanalyses lieten zien dat de verschillen in ervaren invloed van het inductieprogramma op de professionele ontwikkeling in hoge mate verklaard kunnen worden door de kenmerken van het inductieprogramma waarmee de docenten zijn begeleid. Dit geeft aan dat inductieprogramma's een belangrijke invloed op de professionele ontwikkeling van docenten kunnen hebben, maar dat dit meestal niet het geval is als gevolg van het ontbreken van een aantal essentiële kenmerken.

De belangrijkste verklarende variabele bleek de mate waarin de mentor in staat is beginnende docenten uit te dagen in hun professionele ontwikkeling. Andere variabelen die de verschillen verklaren, waren de mate aan aandacht voor onderwerpen gerelateerd aan professionele ontwikkeling, geboden faciliteiten, de intensiteit van het inductieprogramma, de mate van aandacht voor emotionele ondersteuning en de mate waarin de begeleider zich ondersteunend opstelt. Deze laatste twee variabelen lijken niet sterk gerelateerd aan de professionele ontwikkeling van beginnende docenten. Het feit dat deze wel naar voren komen in de regressieanalyses en sterk samenhangen met de ervaren invloed van het inductieprogramma op de professionele ontwikkeling, duidt erop dat aandacht voor emotionele ondersteuning een voorwaarde is om met een inductieprogramma bij te dragen aan de professionele ontwikkeling van beginnende docenten.

De sterke samenhang tussen de kenmerken van inductieprogramma's en de ervaren invloed van inductieprogramma's op de professionele ontwikkeling was aanleiding om nader onderzoek te doen naar de kenmerken van de inductieprogramma's die als invloedrijk voor de professionele ontwikkeling werden ervaren. Hiertoe werden de kenmerken van een gemiddeld inductieprogramma vergeleken met de kenmerken van de inductieprogramma's die als zeer invloedrijk voor de professionele ontwikkeling werden ervaren.

Wat zowel de gemiddelde als invloedrijke inductieprogramma's gemeenschappelijk hebben, is dat ze bestaan uit een combinatie van vormen van begeleiding zoals een introductiebijeenkomst, individuele begeleiding van een begeleider, groepsbijeenkomsten voor beginnende docenten en trainingen. Ook de intensiteit van de invloedrijke inductieprogramma's was vergelijkbaar met een gemiddeld inductieprogramma. Een groot verschil echter met een gemiddeld inductieprogramma betrof de mate van geboden faciliteiten. De invloedrijke inductieprogramma's waren over het algemeen goed georganiseerd en bevatten ruime faciliteiten. Een tweede groot verschil met een gemiddeld inductieprogramma betrof de mate van aandacht voor de verschillende onderwerpen. Zowel praktische zaken, emotionele ondersteuning, maar

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vooral onderwerpen gerelateerd aan de professionele ontwikkeling kregen meer aandacht in de invloedrijke inductieprogramma's. Het grootste verschil werd echter veroorzaakt door de mentor. De mentoren in de invloedrijke inductieprogramma's werden over het algemeen hoger beoordeeld op de mate waarin zij een basis van vertrouwen creëerden, ondersteunend waren, en vooral, de mate waarin zij in staat waren de docent uit te dagen in zijn of haar professionele ontwikkeling.

In **hoofdstuk 5** worden de conclusies beschreven en bediscussieerd. Het onderzoek bevestigt de toename van het gebruik van inductieprogramma's. Was het enkele decennia geleden nog gewoon beginnende docenten met slechts een woord van welkom te laten beginnen, nu beschikken zeer veel scholen in Nederland over een vorm van een inductieprogramma. Vaak ligt de nadruk in inductieprogramma's op emotionele ondersteuning en het helpen van docenten bij problemen met klassenmanagement. Er is beperkte aandacht voor onderwerpen met betrekking tot pedagogiek en vakdidactiek. Een mogelijke verklaring hiervoor is dat de meeste mentoren sterk gericht lijken te zijn op de alledaagse urgente zorgen en problemen van de docent. Zij proberen docenten te ondersteunen en hen te helpen met hun vragen en problemen, die vaak betrekking hebben op klassenmanagement. De resultaten van de interviewstudie suggereren dat wanneer mentoren meer gericht zouden zijn op het leren van de leerling, er meer aandacht zou zijn voor pedagogiek en vakdidactiek.

De gerichtheid van inductieprogramma's op emotionele ondersteuning en klassenmanagement komt overeen met de positieve invloed van inductieprogramma's die docenten op hun welbevinden ervaren. Het lijkt hiervoor van weinig belang of een inductieprogramma een hoge intensiteit heeft of niet. Het meest essentiële kenmerk van een inductieprogramma dat bijdraagt aan het welbevinden van beginnende docenten is de mate waarin de mentor ondersteunend is.

Tot slot wijst het onderzoek op de beperkte invloed van inductieprogramma's op de professionele ontwikkeling van beginnende docenten. De meeste docenten ervaren slechts weinig invloed van het inductieprogramma op hun professionele ontwikkeling. De ervaren invloed hangt echter sterk samen met de kenmerken van een inductieprogramma. De onderzoeksresultaten suggereren een aanzienlijke invloed op de professionele ontwikkeling wanneer inductieprogramma's beter georganiseerd en gefaciliteerd zijn, wanneer er meer aandacht wordt besteed aan onderwerpen gerelateerd aan professionele ontwikkeling en wanneer de mentoren beter in staat zijn docenten uit te dagen in hun professionele ontwikkeling.

Evenals vorig onderzoek laat het huidige onderzoek zien dat inductieprogramma's over het algemeen bijdragen aan het welbevinden en soms aan de professionele ontwikkeling van beginnende docenten. Dit onderzoek geeft echter meer inzicht in het belang van de specifieke kenmerken. Zowel in relatie tot het welbevinden als de professionele ontwikkeling blijkt dat intensiteit van het inductieprogramma van minder belang is dan algemeen verondersteld.

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De kenmerken van de mentor zijn juist van zeer groot belang. Specifiek in relatie tot het welbevinden blijkt het belangrijk dat mentoren ondersteunend zijn. In relatie tot de professionele ontwikkeling is dat ook van belang, maar is het vooral belangrijk dat mentoren in staat zijn docenten uit te dagen in hun professionele ontwikkeling. De literatuur laat een gedifferentieerd beeld zien over de invloed van inductieprogramma's op de professionele ontwikkeling van beginnende docenten. Dit onderzoek bevestigt dat beeld en toont aan dat verschillen in resultaten waarschijnlijk grotendeels te verklaren zijn door de verschillen tussen inductieprogramma's. Op basis van het onderzoek worden drie aanbevelingen gedaan om de invloed van inductieprogramma's op de professionele ontwikkeling van beginnende docenten te bevorderen. Ten eerste wordt aanbevolen om de inductie van beginnende docenten meer te faciliteren. Dit is een belangrijke voorwaarde om inductieprogramma's te kunnen verbeteren. Ten tweede wordt aanbevolen om bij de selectie van mentoren rekening te houden met de competentie van mentoren om docenten te kunnen uitdagen in hun professionele ontwikkeling. Hiervoor is onder meer van belang om te investeren in de voorbereiding en scholing van mentoren. Ook verdient het aanbeveling om assessment-procedures in het inductieprogramma op te nemen, die mentoren beter in staat stellen docenten in hun professionele ontwikkeling te ondersteunen. Ten derde wordt aanbevolen de professionele ontwikkeling van docenten een meer centrale plaats te geven in scholen dan nu vaak het geval is, bij voorkeur in samenwerking met lerarenopleidingen.

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Kessels, C., Van Veen, K., Beijaard, D., & Verloop, N. (submitted). The importance of induction programs to the well-being of beginning teachers.

Kessels, C., Van Veen, K., Beijaard, D., & Verloop, N. (submitted). Supporting beginning teachers' professional development with an induction program: When does a program make a difference?

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Curriculum Vitae

Chantal Kessels was born in Breda, the Netherlands, on May 30th 1979. She attended secondary education at the Onze Lieve Vrouwe Lyceum in Breda, where she graduated in 1997. From 1997 to 2003 she studied Cognitive Psychology at the University of Maastricht, specializing in Educational Psychology. Her master's thesis was conducted at the VU University of Amsterdam and concerned two studies about mathematics education in primary education. In these studies, differences were investigated between mathematics education in regularly primary education on the one hand and developmental education on the other hand. In 2003, Chantal started her PhD project at ICLON, Leiden University Graduate School of Teaching. Her PhD project 'The influence of induction programs on beginning teachers' well-being and professional development' consisted of two studies in which she investigated how beginning teachers in the Netherlands are supported by an induction program, and how induction programs influence beginning teachers' well-being and professional development. She attended master classes and courses on teacher education, methodology and analyses in scientific research. Furthermore, she presented her research on national and international conferences.

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