Introduction

History of the research program

The role of school leaders in the Netherlands has changed significantly over the past few years. Due to government policies aimed at deregulation and decentralization, the autonomy of schools has increased. Schools have gained more freedom concerning managerial, organizational, educational and financial matters. These developments and changes in the environment have caused a multiplication of school leader tasks, but also the accountability of school leaders has increased. As a consequence schools have become different from each other, which means that external profiling has become more important. Schools are encouraged to compete with other schools.

This wide variety of changes places a large load on the school leader. He/she can no longer depend on one type of behavior or leadership style to cope with all these demands. School leadership requires multiple competences in order to deal adequately with the diverse and sometimes contradicting demands of the environment. Quinn and Rohrbaugh (1983) acknowledge these competing demands and developed the Competing Values Framework to examine the ability of leaders to cope with these demands. They found that the most effective leaders are the ones who are able to fulfill several roles simultaneously. Denison, Hooijberg and Quinn (1995) refer to this broad behavioral competence as behavioral complexity, or the extent to which a leader has the capacity to display a wide range of behaviors. The more types of behaviors a person displays, the higher his/her behavioral complexity.

With respect to the changes in the job of school leaders, it is of course a relevant question if and how school leaders contribute to the outcomes of the students in their schools. The expanded complexity of the school leaders’ role has contributed to a lot of research in this area. In the seventies and eighties many scholars explored the effect of school leaders on student outcomes. The role of school leaders in school effectiveness became crucial. It was believed that any effect of the school leader on student results could be measured
directly, regardless of the paths through which the effect runs. However, with simple direct-effect models, effects of school leader behavior on student achievement were hardly ever found; the direct-effect models appeared to be too simple. In response, scholars assumed that the impact on student results should be measured indirectly, through other people and through organizational and cultural factors. By using more complex models, several scientists have found an indirect effect of school leaders on student outcomes. Bossert, Dwyer, Rowan & Lee (1982) were among the first authors to show that the effect of school leaders on student results is not a direct effect, but an indirect effect that runs through school climate and instructional organization. However, not much is known about the paths through which the influence of the school leader on primary processes in the school runs.

Integral models, or models that are characterized by the synthesis of a chain of variables, can be useful in the examination of school leadership and the paths through which the influence of school leaders runs (Yukl, 1981). In the integral model of Bossert et al., (1982) school leaders act intentionally from an overall perspective on the school (Witziers, Bosker, & Krüger, 2003). Their cognitions and behavior are shaped by personal characteristics and a number of factors outside the school, including district- and external characteristics. In the integral model of Bossert et al. the school leader variable stands as both a dependent and an independent variable (Pitner, 1988). As a dependent variable, the behaviors of a school leader are subject to the influence of other variables, like the context of the school or the cognitions of the school leader, and as an independent variable the school leader influences the school organization, climate and finally the student outcomes.

More recently, the importance of contextual factors in school leadership was pointed out by Heck (1993) and Leithwood et al. (1990). Even though many researchers subscribe to the importance of contingency factors, still little is known when it comes to empirical knowledge within educational settings. Yukl (1981) dedicated the last chapter in his book to this problem: the lack of empirical evidence is a widely supported complaint. Even twenty years later,
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only a few empirical studies can be found (Quinn and Spreitzer, 1991; Kalliat, Bluedorn, and Gillespie, 1999).

The importance of the cognition of school leaders was stressed by Krug (1989, 1992), who found that intentions play a more important role in the effectiveness of a school leader than his actual actions. Imants (1996) conducted a broad study of the literature and concluded that the vision of school leaders on their own position, on the functioning of the school and on the goals of the school, together with formulating and disseminating this vision, are crucial conditions for directing their own behavior and the functioning of the school. Over the past decades, the vision of the school leader has been included in research models (Bossert et al, 1982; Leithwood, 1995). We continue in the same line of reasoning and examine school leader actions in combination with their interpretations of their own functioning. We refer to these interpretations as role perceptions. This is a fairly new approach, since most studies examine the influence of contingency factors on behavior, instead of the influence on role perceptions.

In this thesis we focus on the school leader as a dependent variable. We are interested in the factors that affect his or her behavior and take into consideration the possible mediating influence of the role perception of the school leader. The main questions we will address are: What are the role perceptions of school leaders in secondary education in the Netherlands and what behavior is employed by them? We will also study the relationship between role perceptions and behaviors of school leaders. Further, we will examine the relative influence of background factors on the role perceptions of school leaders and on their behavior.

As an overall framework, we use the Competing Values Framework developed by Quinn and Rohrbaugh (1983). This general managerial framework has two key assumptions that are useful to us. First of all, the framework assumes that all leaders face competing demands, and secondly, it believes that the most effective leaders have the ability to perform several roles within their organization (behavioral complexity).
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The research program

The study in this thesis is part of a research program financed by the Netherlands Organisation for Scientific Research (NWO), entitled ‘Educational steering and its effects in school organizations’. This research program is conducted by the University of Amsterdam and the University of Twente and it aims to study the complex relationships between contextual, leadership, intermediate and effect variables on a student level. Within the research program, there are three related projects. The first project focusses on the relationship between context variables, cognitive processes and school leader behavior (this thesis). The second project examines the relationship between school leader behavior, the mediating variables school culture and organization, and the effects on a student level. This study is conducted by Gerdy ten Bruggencate at the University of Twente. Recently, the results of her study have been reported in a dissertation (Ten Bruggencate, 2009). The final project deals with the empirical validation of the complex causal relationships between context variables, leadership variables, intermediate variables and effect variables on a student level. This study was conducted by Femke Geijsel who worked at the Radboud University Nijmegen until 2004 and then started as a post-doc at the University of Amsterdam until the end of the project in September 2005. The results of this project are reported in 2007 (Sleegers & Van Schooten, 2007). All three studies employed the same conceptual framework and made use of the same instruments. The data were collected at schools in the Netherlands that offer a secondary general education program (havo). In total we had a response from 103 school leaders, 998 teachers and 4000 students. The student data have been analyzed by the University of Twente.

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1 In Dutch secondary education four main streams are distinguished: junior vocational, lower general, higher general and pre-academic. The junior vocational and lower general education tracks both take four years to complete and prepare students for senior secondary vocational education. Secondary general education takes five years and prepares students for higher professional education. Pre-academic education takes six years and prepares students for higher professional education or university.
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Overview of chapters

Chapter 1 outlines the theoretical framework of the study. School leadership theory has been derived to a large extent from general leadership theories and therefore we start this chapter with a description of the most important general leadership theories. Subsequently, we present an outline of school leadership theories and typologies. After that, the effectiveness of school leaders, a central theme in most leadership research will be brought up.

In chapter 2, we discuss models for measuring school leadership and we present the Competing Values Framework by Quinn and Rohrbaugh (1983), which guided our operationalization of the role perceptions and behavior of school leaders. We conclude our theoretical framework with the importance of context in school leadership research.

In chapter 3 the research design of the study is explained. We discuss the research model, the research questions and the variables in our research model. This chapter contains information on the data collection, the instruments and the response. The data analyses are described with regard to construct validity, descriptives and causal relationships.

Chapter 4 deals with the construction and validation of our instruments. We test whether the Competing Values Framework is a valid model for measuring school leadership, examining its aptness for measuring the role perceptions of school leaders and for measuring their behavior. Finally, we validate our instrument concerning the antecedent variables.

Chapter 5 describes the results of this study. We start with the results concerning the descriptives of our three groups of variables: antecedent variables, role perceptions and school leader behavior. Then the outcomes of the analyses concerning the relationship between the groups of variables are presented.

Chapter 6 presents the conclusions and discussion. After a brief description of the main results, we will discuss three important themes resulting from this thesis: validity matters, behavioral complexity in leadership practice and the exploration of our re-
search model. The chapter concludes with some suggestions for further research and the implication for the practice of school leaders.