School leadership : perceptions and actions
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Summary

During the past decennia, the role of school leaders has changed significantly. As a result of deregulation and decentralization, the autonomy of school leaders has increased, which, in turn, has made the job more multi-faceted. School leaders have more freedom in making decisions concerning education, financial and personnel matters; however, the increased freedom comes with increased accountability. School leaders have an increased responsibility in accounting for student outcomes. A secondary result stemming from this is that individual schools have more frequent opportunities to distinguish themselves from other schools, a situation that encourages a certain competition between schools. All of these changes put great pressure on school leaders - pressure to meet a school's varied needs with varied behavior. School leaders are currently required to have the ability to, and to actually display, differential behavior in situations of differing types; having one, and only one, set of management behavioral characteristics, is insufficient.

A variety of skills are necessary in order to cope with the demands of the environment. Quinn and Rohrbaugh (1981) acknowledge the many demands managers face; furthermore, these demands are sometimes contradictory. From this perspective, Quinn and Rohrbaugh developed the Competing Values Framework to facilitate investigation into how managers do two essential things: how managers cope with these contradicting demands, and to see which managers are most effective. The framework consists of two axes (or dimensions), which create four quadrants: the horizontal axis ranges from an internal to an external focus, and the vertical axis ranges from control to flexibility. The quadrants are labelled: human relations, open system, rational goal and internal process. Research shows that effective leaders are capable of fulfilling several leadership roles simultaneously, and, therefore, their behavior is situated in more than one quadrant. Denison, Hooijberg & Quinn (1985) refer to this ability as behavioral complexity.
Quinn and Rohrbaugh state that all leaders face four competing organizational demands (evoked by the four organizational models in the framework). Each of these four demands corresponds to a leadership style that consists of two characteristics typical of that type of leader. These eight characteristics are, in turn, the roles that leaders can fulfill in an organization: facilitator, mentor, broker, innovator, producer, director, controller and coordinator.

As one considers the changes in the job of school leaders, it is interesting to investigate if and how school leaders influence student results. In the seventies and eighties, the increased complexity of school leadership led to a large amount of research, which almost exclusively focused on the effectiveness of school leaders. It was originally believed that the effect of school leaders on students could be measured directly, regardless of the paths through which the leader's influence reaches the students. However, using these simple models, hardly any effect of school leaders on student outcomes was found. In response, scholars tried to measure the effect of school leaders in an indirect way, namely through other people within the school, and organizational and cultural factors. The use of these more complex models showed an indirect effect of school leaders on student outcomes. The study of Bossert, Dwyer, Rowan & Lee (1982) was one of the first to show that the effect of school leaders on student outcomes cannot be measured directly, but runs through school climate, and through the educational organization. Despite such breakthroughs, there is still very little known about the paths through which the effects run; one possible method for examining these paths is by means of integral models, which are characterized by a chain of variables (Yukl, 1981).

In the integral model of Bossert et al., school leaders act intentionally from an overall perspective on the school. Their behavior and cognitions are affected by several factors outside the school, such as the personal characteristics of the school leader, school characteristics, and characteristics of the environment of the school. In the Bossert model, the variable of the school leader is a dependent, as well as an independent, variable (Pitner, 1988). As a dependent variable, the behavior of school leaders is affected by several fac-
tors; for example, the context of the school or the characteristics of the school leader. As an independent variable, the behavior of school leaders affects the school organization and school climate, which in turn affect student outcomes.

In this thesis, we focus on the school leader as a dependent variable. We investigate factors that affect the behavior of school leaders; for this reason, we take into consideration contextual factors, as well as the mediating influence of the cognitions of the school leader. The importance of cognitions is underlined by Krug (1989, 1992), who found that the intentions of school leaders play a larger role in determining school leader effectiveness than their actual behavior does. Imants (1996) conducted a literature study and found that the vision of school leaders regarding their own position and their own functioning is crucial in determining their own behavior. In this study, we refer to the vision of school leaders regarding their own role as 'role perception'. We want to answer the following research questions: “What role perceptions can be distinguished amongst school leaders of havo schools in the Netherlands, and what behavior do they display?”

We use the Competing Values Framework of Quinn and Rohrbaugh (1983) to investigate these questions because this framework is in line with our assumptions. First, it recognizes the competing demands that school leaders are up against; secondly, it assumes that effective leaders are capable of fulfilling more than one role within their organization (behavioral complexity).

Research design

In order to answer the questions in this thesis, we used questionnaires, which were answered by 103 school leaders and 998 teachers of havo-schools in the Netherlands. The school leader questionnaire consisted of questions targeting the three groups of variables in our study: school leader role perceptions, school leader behavior and antecedent variables (personal characteristics of the school leaders, school characteristics and characteristics of the context of the school). We also questioned the teachers on their perception of their school leader’s behavior.
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The validation of the Competing Values Framework plays an important role in this thesis: we first checked whether the role perceptions, and the behavior as distinguished in the Competing Values Framework, could be found in our data. Structural equation modelling was used in order to determine this. We then examined, by means of multi-level analysis, the amount of school-level variance in the data coming from the teacher questionnaires, as well as the convergent validity of the corresponding variables in the school leader and teacher questionnaires.

In validating the Competing Values Framework for our purposes, structural equation modelling distinguished seven of the eight role perceptions in our data. Because one role, the producer role, was indistinguishable using structural equation modelling, this role was excluded from all further analysis.

The analyses focusing on the behavior of school leaders show that we could find the structure of the framework in the school leader questionnaires, as well as in the teacher questionnaires. For these reasons, the Competing Values Framework appears to be appropriate for measuring the behavior of school leaders. One caveat is that we found a relatively small amount of school-level variance, which means that the results of the teacher questionnaires are not a valid measure of school leader behavior. The data are valid to measure teachers’ perception of school leader behavior, but unable to measure actual school leader behavior. In addition, convergent validity was low; the degree of agreement between the results of the school leader and teacher questionnaires is low, despite our intention that the two questionnaires would measure the same concept.

Upon establishing the validity of the Competing Values Framework, we set out to address the research questions. First, we examined the role perceptions and the behavior of school leaders; we then took these findings in order to study the relationships between: 1) antecedent variables and role perceptions, and 2) between the antecedent variables, role perceptions and the behavior of school leaders.
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Results

Role perceptions

The first research question focused on the role perceptions of havo-school leaders in the Netherlands. We found that school leaders assign the highest values to roles belonging to the open system model (innovator and broker roles). The roles from the internal process model (controller and coordinator) are considered relatively less important. We also found that school leaders value educational tasks more than administrative tasks.

Behavior

The school leaders indicate that, in the division of their working time, the most time is spent stimulating the effectiveness and productivity of the school, which is a behavior typical of the rational goal model.

Furthermore, school leader behavior is aimed at increasing teacher participation (human relations) and innovations (open system). The lowest scores were found for behavior aimed at the internal process model, which is in line with the outcomes we found for the role perceptions of school leaders. Apparently, internal process and the efficiency of the school are not a priority. A final result of the school leader questionnaires: we found lower scores on the behavior of school leaders than on their role perceptions. This could indicate that school leaders consider many things important, and yet lack time to actually act upon their role perceptions.

The results of the teacher questionnaires show that school leaders, according to the teachers in their school, do not display much behavior that is aimed at stimulating teacher participation (human relations). Teachers mainly report actions that are aimed at increasing the external orientation of the school and its adaptability; essentially, teachers report their school leaders as exhibiting behavior from the open system model. Apparently, teachers have a different perception of their school leaders' behavior than school leaders have of their own behavior.
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Relationship between antecedent factors and role perceptions

We found relatively few results with regard to the relationship between antecedent factors and role perceptions. Our study shows that the innovator role perceptions is found significantly more often for school leaders who have perceived an increase in policy space as a result of decentralization, and for school leaders with a low percentage of low SES students in their schools.

Relationship between antecedent factors, role perceptions and behavior

The analyses of the entire research model revealed that antecedent factors rarely predict the role perceptions or the behavior of the school leaders. The antecedent factor ‘school leader tasks’ is the only factor that has an effect. In combination with antecedent factors, except for the mentor role, role perceptions do not predict the behavior of school leaders.

Relationship between role perceptions and behavior

As mentioned earlier, we have used the Competing Values Framework of Quinn and Rohrbaugh (1983) to answer the research question concerning the role perceptions and behavior of school leaders. Theoretically, the role perceptions can be classified under the four behavioral models, which results in the following assumptions:

- The director predicts rational goal behavior
- The controller and the coordinator predict internal process behavior
- The facilitator and mentor predict human relations behavior
- The innovator and broker predict open system behavior

Multi-level regression analysis showed that rational goal behavior, as measured by teacher questionnaires, cannot be predicted by the director role perception. Likewise, the controller and the coordinator role perceptions cannot predict internal process behavior; however, without the coordinator role perception, the controller role perception does predict internal process behavior. Furthermore, the facilitator and the mentor role perceptions both significantly predict human relation behavior as perceived by teachers.
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Conversely, without the mentor role perception, the facilitator role perception no longer predicts human relations behavior. Finally, open system behavior, as perceived by teachers, is significantly predicted by both the innovator and the broker role perceptions, as well as by the combination of these two role perceptions.

Discussion

Three major issues can be discerned from the results: the validity of the Competing Values Framework and of questionnaire research, behavioral complexity in the leadership practice, and the exploration of our research model.

Validity

The Competing Values Framework was originally developed to ascertain a certain level of structure in the criteria for organizational effectiveness (in a non-school setting). Since educational leadership theories cannot be completely separated from general leadership theories, and because within educational research, general leadership theories and models are often applied, we were interested in testing the extent to which the Competing Values Framework of Quinn and Rohrbaugh is also applicable to school leaders.

We have checked both the role perceptions as well as the behavior of school leaders in order to determine the degree to which the items in our questionnaire assess the four latent behavioral constructs, as well as the eight role perceptions of the Competing Values Framework. It was found that all items have significant factor loadings on the factor they are intended to measure. In addition, we found that the relationships between the items and the latent factors, as well as the relationship between the factors themselves, are equal for both the teachers and the school leaders. Based on these outcomes, we conclude that the Competing Values Framework is suitable for measuring the behavior of school leaders.

Analysis with regard to the role perceptions shows that seven of the eight different roles of Quinn and Rohrbaugh can be reliably distinguished. However, no evidence was found for the producer role perception; a possible explanation can be found in
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our operationalization of this role perception. Originally, producers achieve the goals of their school by ensuring that teachers achieve these goals; in contrast, our items focus more on stimulating and motivating teachers in general, and on checking whether the teachers do what is asked. Since a lot of research on school leadership, including this study, is conducted through questionnaires, measures are subjective in the sense that school leaders judge their own behavior in these questionnaires, or teachers report their perceptions of the behavior of their school leaders. Are both instruments valid measures of school leaders' behavior?

The school leader questionnaire generates one score for each question and thus always measures the perception of the school leader of his or her own behavior. The scores of the teacher questionnaires are multi-faceted: the questionnaires are filled out by several different people, which generates several scores for one leader. The questionnaires measure the perceptions of teachers, but we can only interpret the outcomes if we take into account the school-level variance.

If the perceptions of teachers are a valid measure of school leader behavior, the scores of the teachers from the same school should correspond. If the scores differ too much, it is, in fact, the personal opinions of individual teachers that is measured, and not the behavior of the school leader.

We found a low, but significant, percentage of school-level variance (10-20%). There are three possible explanations for the small proportion of school variance found: first, teachers may not have an accurate view of the job of their school leader because they have no clear idea what their school leader is doing. Secondly, it is possible that our population of teachers is too heterogeneous and that, therefore, there is no sense of unity in the school. The third explanation is that perceptions are psychological: teacher perceptions are not only determined by their observations of the behavior of their school leaders, but also by personal characteristics of the teachers, such as their relationship with the school leaders. For these reasons, and because the teacher and school leader scores differed despite or intention to measure the same construct, we rec-
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Recommend the additional use of other instruments when measuring the behavior of school leaders (triangulation). Observations and logs are good alternative additions.

Behavioral complexity

School leaders do not demonstrate all four types of behavior equally even though, according to previous research, effective leadership requires a broad repertoire of actions. One of our explanations for the somewhat one-sided behavior of school leaders in our study is the context in which they operate. As a result of decentralization, schools have to ‘prove’ that the money is being spent well and that their students obtained good results. Rational goal behavior is needed to deal with this requirement.

Furthermore, the larger amount of innovation currently required of schools, in addition to the high expectations of society with respect to school leaders’ problem solving capacity, demands innovative, open system, behavior from school leaders. As a result, there is less time to focus on the internal organization (internal process). It is highly probable that a different external context would lead to an emphasis on other types of behavior on the part of school leaders. Since there was no measure of effectiveness in our study, we cannot make statements on the effectiveness of school leaders. Therefore, we recommend that future studies include a measure of effectiveness, e.g. student results, or evaluations of the school board.

Exploration of our research model

We found little evidence for the relationships between the groups of variables described in our research model. A possible explanation lies in the operationalization, as well as the position, of the role perception variable. Previous studies indicated that the vision of school leaders plays an important role in their behavior. In line with the Competing Values Framework, we have operationalized vision as role perceptions. In retrospect, the two constructs refer to two different things. On the one hand, vision refers to the ideas of the school leader concerning the (optimal) organization of the school, and the direction in which the school should be devel-
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role perceptions, in contrast, relate to the different roles a leader can perform in an organization. In addition, it is possible that the relationship between the role perceptions and behavior is not as one-directional as our model suggests. If we assume that a person’s role perceptions and behavior are in harmony (cognitive dissonance theory), it is equally probable that the relationship between role perceptions and behavior is reciprocal. This would result in an adapted research model in which vision is included as an antecedent variable, and in which the relationship between role perceptions and behavior is reciprocal instead of causal.

Implications for the practice of school leaders

The behavioral repertoire of school leaders should be as broad as possible; however, all sorts of influences, for example national policies, cause school leaders to display one-sided behavior. School leaders would have more time to spend on the daily workings of their own school if the umbrella organization takes care of government-imposed policies.

Finally, school leaders should be aware that their behavior is not always visible for teachers, and that teachers, in line with their individual needs, regard the school leaders from their own perspectives. Reflecting on the needs of their teachers would help school leaders exercise more influence in their organization.

In practice, we found that many school leaders complain about the restrictive nature of factors both within, and outside, the school. School leaders perceive the context of the school as a fixed situation with which they are appointed to cope. However, our results show that, in fact, context factors do not have much influence on the behavior of school leaders. This knowledge may help school leaders to overcome their passive attitude towards contextual factors and actively use the context of their school to their advantage.