School leadership : perceptions and actions
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Chapter 2- The Competing Values Framework of Quinn and Rohrbaugh

Chapter 2

The Competing Values Framework of Quinn and Rohrbaugh

In this chapter we will discuss the Competing Values Framework by Quinn and Rohrbaugh (1983), a general leadership model which we use for measuring school leadership. We will explain our choice for the framework and set forth why this model is apt for measuring school leadership from an integral perspective. In order to reconstruct how the model was build up, we start with a short history of concepts and measurements of organizational effectiveness. Then the model itself will be described. Next, we will present an overview of how the model was tested by others. In the last section (2.6) school leadership and its effects are placed in the context of the school. The importance of contingency factors while investigating school leadership is demonstrated and an overview is given of three kinds of relevant contingency factors for school leaders: characteristics of the school context, characteristics of the school and personal characteristics of the school leader. With this in mind, we explain our choice for using a general and school specific model for measuring school leadership in this thesis.

2.1 Choosing a model

In the first chapter we have stressed the importance of integral models in school leadership research. We have subscribed earlier research by Bossert et al. and by Hallinger and Heck in which they integrate the behavioral, cognitive and contingency theory and measure the effects of school leadership by a chain of variables. In short, Bossert et al. stated that the effect of the school leader runs through school climate and instructional organization. The school leader acts intentionally from an overall perspective also taking the context of the school into account. So, with the aim of measuring school leadership, we need a complex model that has been proven valid in different areas. The model needs to include a behavioral,
contingency and cognitive perspective and it must be suitable for as many areas of Bossert's chain as possible: on the level of cognitions and actions of the leader, context of the organization and culture or climate.

Also, we have related the concept of leadership effectivity with behavioral complexity (Denison, Hooijberg & Quinn, 1995). The more types of behavior a leader is able to display, the more effective he/she is. For this thesis, we are looking for a model that does justice to a polyvalent idea of effectivity.

Witziers, Bosker and Krüger (2003) suggest that the Competing Values Framework of Quinn and Rohrbaugh (1983) is an appropriate instrument to get more insight in the role of school leaders in secondary education and indeed, the framework seems to meet our demands very well. First of all, it has been applied in many different contexts. Quinn and Rohrbaugh have generated research on the behavior of leaders, on their roles (or cognitions), and on the culture and structure of organizations. Apparently the framework is a way of thinking that is applicable to several aspects of an organization. This makes it apt for studying a chain of variables and finding a common structure within different elements of the organization.

Further, Quinn and Rohrbaugh (1983) state that behavioral complexity is a requisite for leadership effectiveness. According to them leaders are faced with competing demands and the most effective leaders are the ones able to perform several roles within their organization. We subscribe to the idea that the effectiveness of leaders increases when they display more types of behavior. The Competing Values Framework was developed from this point of view, making it very suitable for our project.

The Competing Values Framework is a general leadership model, which has been used in many areas, like hospitals and the military. The framework is widely accepted, but it has hardly ever been empirically tested. And never in an educational setting. This is a great opportunity to empirically validate a famous framework and discover whether it is also valid in school settings.
Organizational effectiveness is a construct of central importance in the organizational literature. In the same line, school effectiveness is a central theme in education. Both school- and organizational effectiveness focus on the attainment of goals that are set. Is the output as expected? In education the output is not a product, nor does it concern the amount of profit: it is all about student results.

Quinn and Rohrbaugh (1983) noted that the concept of organizational effectiveness is not without problems. One of the major problems is the imprecision of the definition of the effectiveness construct. The construct is highly abstract and there is no agreement on its structure. Over the years, several attempts have been made to bring more integration in the literature. Yet, to integrate the literature on organizational effectiveness, the concept must be transparent, which it is not. Steers (1975) reviewed 17 models of organizational effectiveness and suggested identification of variables in the domain of effectiveness. He argues for a ‘clear understanding of an organization’s functional and environmental uniqueness’ in order to assess effectiveness. Steers believes that attempts to measure effectiveness should be made with reference to the running goals of an organization. Effectiveness should be viewed in terms of goal attainment: an organization’s ability to use its means successfully to achieve specific ends. Steers also points out that not all goals are pursued with equal effort and suggests differential weights on various evaluation criteria.

Campbell (1977) tried to integrate the literature in a different way. He identified 30 different criteria of effectiveness, but concluded that ‘different people adhere to different models, and there is no correct way to choose among them. Thus, when a list is put together from different conceptual points of view, the composite list will almost inevitably look messy’ (p.40). The main problem was the length of the list and the diversity of the criteria. Several scholars tried to reduce the large number of criteria and classified them into three or four basic models. Scott (1977) suggested three models:
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the rational system model, natural system model and open system model. Key words of the rational system are productivity and efficiency. The natural system focusses on morale and cohesion and the open system stresses adaptability and resource acquisition. Seashore (1979) proposed a comparable three-model approach. He distinguishes a goal model similar to Scott’s rational system, a natural system that encloses the natural and open system model of Scott, and a decision process model in which organizational effectiveness is attained by optimizing the processes. Cameron (1979) integrated the effectiveness literature into four models: goal approach, system resource, internal processes and participant satisfaction. The goal model resembles Scott’s rational model and Seashore’s goal model, the system resource approach is like the open system model of Scott, and the internal processes model can be compared to Seashore’s decision process model. The fourth model, participant satisfaction, can be considered as an elaborate natural system as described by Scott and Seashore. In order to be effective, continued transactions between constituencies in an organization need to be guaranteed.

A lot of effort has been put into simplifying the list of effectiveness criteria and there has been some consensus on the models that were developed (they more or less resemble), but it still was not satisfying to some scholars. Quinn and Rohrbaugh (1983) for example did not think the effectiveness construct was clear enough and Campbell (1977) pointed out the shortcoming that the studies above are all based on factor analyses. According to Campbell, the shortcomings of these factor analyses studies, is especially the fact that the selected criteria usually reflect a set of unspoken underlying personal values about the suitable emphases in the field of effectiveness.

2.3 Conceptualizations of organizational effectiveness

Quinn and Rohrbaugh (1983) continued their investigation of the effectiveness construct, but they had a different approach than most other scholars. They focused on ‘the cognitive structure of the organizational theorist instead of on the operational structure of the
organization’. The main question they were interested in was how individuals think about the construct of effectiveness. Their goal was to identify the structure among possible criteria used to evaluate organizational effectiveness. Quinn and Rohrbaugh performed an exploratory study with a panel of seven experts, and a second study with 45 theorists and researchers using the list of 30 criteria developed by Campbell. In the first exploratory study the seven experts were asked to reduce the list of 30 effectiveness criteria and then check the remaining criteria for resemblances. The panel removed 13 criteria thus creating a list with only singular constructs that are relevant to performance evaluations of organizational units. Multidimensional scaling techniques (INDSCAL) were used to judge the resemblance of the remaining criteria and to find dimensions underlying the remaining criteria. Quinn and Rohrbaugh found three dimensions underlying conceptualizations of organizational effectiveness: internal-external, flexibility-control and means-ends.

The first bi-polar dimension refers to the focus of the organization. It reflects the contrast between an internal, person-oriented emphasis and an external organization-oriented emphasis. The underlying assumption is that some organizations are effective when there is a harmonious internal atmosphere, while other organizations benefit more from a strong orientation towards cooperation and competition outside the own organization. This pair of competing values represents a basic dilemma of organizations. From an external view, organizations are a logically designed tool with the ultimate goal of achieving its tasks and attaining resources. Here the emphasis is on the overall competitiveness of the organization in sometimes changing environments. From the internal view, organizations consist of participants with unique feelings that require consideration, appropriate information, and stability in their workplace. Quinn and Rohrbaugh state that when the external value on the overall organization is maximized, the internal emphasis on the socio-technical system may be reduced and vice versa.

The second bi-polar dimension relates to the structure of the organization. This dimension reflects differing organizational pref-
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It is essential for structure by representing the contrast between attention for stability and control versus attention for flexibility and change. Some organizations are effective when they are stable and predictable and other organizations are effective when they are able to adjust to the external world. According to Lawrence and Lorsch (1967) the dilemma between integration and differentiation has been a core issue in the history of organization design. In their study they found that the most effective organizations are the ones that are able to best balance integration and differentiation. Georgopoulos and Tannenbaum (1957) had similar findings.

The third bi-polar dimension was interpreted by Quinn and Rohrbaugh in terms of proximity. It reflects the degree of closeness to desired organizational outcomes by representing the contrast between a concern for ends and a concern for processes or means. On the one end of the dimension indicators are located that refer to important processes (i.e. planning and formulating of goals), on the other side of the dimension the indicators refer to final outcomes, like productivity. The underlying thought behind this dimension is that some factors can be seen as important conditions for the realization of other organizational goals. The three dimensional solution was also found in the second study with was performed by Quinn and Rohrbaugh amongst a larger group of prominent organizational researchers (n=45). It must be noted that the last dimension has been considered as a difficult problem in terms of conflicting time horizons (Lawrence and Lorch, 1967, p.35).

In his later work, Quinn (1988) shows that the first two bi-polar dimensions (internal-external and control-flexibility) are sufficient to describe organizational effectiveness. As a result, the third dimension (means-end) does not return in the literature on the competing values model. For this reason we will no longer include this dimension in our study.

All three dimensions have been recognized individually in organizational literature, but they have never been presented as integrated elements of a single conceptual framework. The combination of the two remaining bi-polar continua can be visualized as a model with four quadrants (see figure 2.1) and the construct is re-
ferred to as the Competing Values Framework. The four dimensions embody the primary value orientations of most organizations and each quadrant refers to coherent distinguished sets of organizational effectiveness indicators. In the next paragraph, the Competings Values Framework and its four quadrants will be explained in more detail.

### 2.4 Description of the Competing Values Framework

Quinn and Rohrbaugh developed the Competing Values Framework as a way to understand the behavioral complexity of leaders, which fits perfectly with our polyalent idea of effectivity. Behavioral complexity is viewed by Denison, Hooijberg and Quinn (1995) as the extent to which a leader has the capacity to display a wide range of behaviors, within a beforehand determined taxonomy. The more types of behaviors a person displays, the higher his/her behavioral complexity. They define behavioral complexity as follows (1995, p. 526): “the ability to exhibit contrary or opposing behaviors (as appropriate or necessary) while still retaining some measure of integrity, credibility, and direction”.

The Competing Values Framework also assumes opposing behaviors, more specific two opposing capabilities that leaders can act upon: organizational focus (internal vs external) and organizational preferences for structure (emphasis on flexibility or control). Even though Quinn and Rohrbaugh use the terms ‘competing or opposing values’, they do not consider the dimensions mutually exclusive; organizations and managers tend to display each dimension to a certain degree, but most of them focus on one dimension more than on the other. All leaders experience ‘paradoxical’ demands or conflicting roles in their work, and the effective leader is able to meet these demands by displaying behaviors that are situated in at least three different quadrants. We accept the concept of the paradoxical nature of leadership in this thesis.

A leader does not have to display all the behaviors at one time, but he/she needs to apply the right behavior at the right time. This is in line with the contingency theory, one of the theories we value in the
study of leadership, that states that the effectiveness of a certain behavior depends on the match between that behavior and the context in which the behavior is displayed.

Quinn introduces the competing values model at two levels, the organizational level and the managerial level. He started with developing the framework with four models at organizational level.

The Competing Values Framework at the organizational level

The framework in figure 2.1 combines the four major models in organizational theory (Scott, 1977; Seashore, 1979; Cameron, 1979), each quadrant representing one model. The two axes, or bipolar dimensions in figure 2.1 create four quadrants on the organizational level. The horizontal axis ranges from an internal to an external focus and the vertical axis ranges from flexibility to control. The quadrants are labeled ‘human relations’, ‘open system’, ‘rational goal’ and ‘internal process’.

The human relations model emphasizes flexibility and is internally oriented. It stresses criteria such as morale and participation, cohesion and human resource development, implying that commitment will contribute to effort.
The open system model also emphasizes flexibility, but is has an external orientation. It is directed at change and external support. Continuous innovation and adaptation lead to recognition, growth and the acquisition of external means.

The third model, the rational goal model stresses control and has an external orientation. It is directed towards productivity, profit and the realisation of goals. A clear direction leads to more output, according to this model.

Finally, the internal process model has an internal orientation and underlines control. It values stability, control and continuity and assumes that practice, routines and documentation guarantee stability.

Quinn points out that each model has a polar opposite. The internal process model, which is characterized by control and internal focus stands in contrast to the open system model, which emphasizes flexibility and external focus. The rational goal model, emphasizing control and external focus runs counter to the human relations model, which stresses flexibility and internal focus. In addition to these contrasts, the framework also contains parallels. For example, the internal process model and the human relations model share an internal focus and the rational goal model and open system model have an external focus. Flexibility is shared by the human relations and open system models and the value of control belongs to the rational goal model and the internal process model.

**The Competing Values Framework at the managerial level**

According to Quinn and Rohrbaugh, all leaders face four competing organizational demands that emerge from the four major organizational models mentioned in the above: commitment (human relations), innovation (open system), performance (rational goal) and efficiency (internal process).

Each of the four demands corresponds to a leadership style: motivator (human relations), vision setter (open system), task master (rational goal) or analyzer (internal process). Each leadership style holds two characteristics that describe the leader: the motivator contains the facilitator and mentor role (human relations), the vi-
sion setter holds the characteristics broker and innovator (open system), the task master embraces the producer and director roles (rational goal) and the analyzer holds the monitor and coordinator (internal process). These eight characteristics are the roles that leaders can play in an organization. This is represented in figure 2.2.

Each of the four organizational models discussed in chapter 2.4 matches with a certain leadership style. People in the human relations model are assumed to have a high need for affiliation. Decision making is typified by participation that is expected to result in support. The manager in this model uses group values to influence others and his/her leadership style is supportive. The roles of facilitator and mentor match with this leadership style that relates to people. The value of human resources is the primary effectiveness criterion.

The open system model assumes that people want to develop themselves and be stimulated. In this model, decision making comes with creativity, flexibility and external legitimacy. The lead-
ership style is inventive and risk taking. The effectiveness values are adaptability and readiness.

In the third model, the rational goal model, leaders are assumed to have a high need for achievement. Decisions are made logically and rationally and once a decision is made, it is final. Managers in the rational goal model influence their subordinates by clarification of goals and by rational arguments. Their style is directive and aimed at goal realization. Accomplishment and productivity are the main values.

The assumption in the internal process is that people have a high need for security. Managers process information and their power is based on expertise and influence on information control. Their leadership style is traditional and careful and the roles concerned are those of monitor and coordinator. The main task of the manager is to provide information and preserve structure. The primary effectiveness values are control and stability.
### Table 2.1. Quinn’s Competing Values Model, analysed by Thompson (2000)

<table>
<thead>
<tr>
<th>Human relations model – the motivator (commitment)</th>
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</thead>
<tbody>
<tr>
<td><strong>Facilitator</strong></td>
<td>Facilitators emphasize a concern for moral and cohesion. They value interpersonal skills, and strive to achieve organizational goals through process. Facilitators are adept at mediation and problem solving (alpha = .85)</td>
</tr>
<tr>
<td><strong>Mentor</strong></td>
<td>Mentors emphasize a concern for sensitivity and consideration. They value the development of individuals, and strive to achieve organizational goals by being open and fair. Mentors are adept at skill building and human resources (alpha = .90)</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Internal process model – the analyzer (efficiency)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monitor</strong></td>
<td>Monitors emphasize rules and quotas. They value measurement and documentation, and strive to achieve organizational goals through rational and technical analysis. Monitors are adept at problem solving and information management (alpha = .81)</td>
</tr>
<tr>
<td><strong>Coordinator</strong></td>
<td>Coordinators emphasize structure and stability. They value reliability and continuity, and strive to achieve the goals of the organization through control and evaluation. Coordinators are adept at administrative duties (alpha = .80)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rational goal model – the task master (performance)</th>
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</thead>
<tbody>
<tr>
<td><strong>Producer</strong></td>
<td>Producers emphasize focus and accomplishment. They value motivation and productivity, and strive to achieve organizational goals through stimulating workers to accomplish directives. Producers are adept at responsibility and completing assignments (alpha = .85)</td>
</tr>
<tr>
<td><strong>Director</strong></td>
<td>Directors emphasize direction and planning. They value goal clarification and decisiveness, and strive to achieve organizational goals through establishing objectives and defining roles and tasks. Directors are adept at giving instructions (alpha = .83)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Open system model – the vision setter (innovation)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Broker</strong></td>
<td>Brokers emphasize growth and resource acquisition. They value image and reputation, and strive to achieve organizational goals through influence and persuasiveness. Brokers are adept at negotiations and representation. (alpha = .85)</td>
</tr>
<tr>
<td><strong>Innovator</strong></td>
<td>Innovators emphasize expansion and adaptation. They value imagination and innovation, and strive to achieve organizational through creativity and vision. Innovators are adept at facilitating change and transformation. (alpha = .82)</td>
</tr>
</tbody>
</table>

Table 2.1 gives an overview of the four organizational models and the eight roles that match these organizational models. As can be seen, Thompson (2000) found high alpha’s for each role.

Quinn states that the most effective leader is the one with the broadest behavioral repertoire and the ability to perform roles that include a degree of contradictions. Therefore, this model implies that the definition of an effective leader does not imply being either a mentor, or a broker or a producer, but to be able to perform each of these roles when necessary. This fits in with the contingency theory that states that the effectiveness of an action depends on the situation. Different situations require different roles. It also does justice to the necessity of behavioral complexity in order to be effective.

Quinn and his colleagues examined the existence of the roles mentioned above and the perceived effectiveness of several groups of managers (Quinn, Faerman, & Dixit, 1987; Quinn, Hildebrandt, Rogers, & Thompson, 1991; Hart & Quinn, 1993; Denison, Hooijberg, & Quinn, 1995). Subordinates were asked how they perceived the behavior of their leaders, while superiors were invited to judge their effectiveness. The results of the study show that managers perform a significant variety in roles. They also found that clusters can be distinguished of managers that perform well and managers that do not perform very well. In their study, subordinates of effective leaders are able to distinguish the eight roles more clearly in their leaders behavior than subordinates of less effective leaders and they perceive the behavior to a greater extent (Denison, Hooijberg, & Quinn, 1995). Also, the high achieving managers are able to perform several roles and are thus able to cope in a balanced way with the conflicting demands of the organization. The less achieving managers tend to adopt one role and therefore become less balanced in their leadership style. The high achieving managers are perceived as more effective than the lower achieving managers by their subordinates. These results are confirmed by Hooijberg (1996) in a study amongst managers in the automobile industry and public service cooperations. Here too a relationship is found between per-
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tceived effectiveness and differentiation in the behavioral repertoire of managers.
Thompson (2000) used the roles of Quinn to study the behavior and the observed effectiveness of school leaders. In his research the behavior and effectivity of 57 school leaders in primary, secondary and higher education was measured by questioning 472 subordinates. The eight roles are measured by means of an adapted version of the Competing Values Leadership Instrument (CVLI). As can be seen in table 2.1, the reliability of the a-priori scales that measures the eight roles, appears to be good (the alpha’s varied between .80 and .90). The results show that school leaders differ in the number of roles they perform and in the extent to which they exhibit a behavioral complex leadership style. Also, the most behavioral complex school leaders performed a greater number of roles and were seen as most effective by their subordinates.

2.5 Testing of the framework

The Competing Values Framework was originally developed to find a structure in criteria for organizational effectiveness, but it has been applied in a broad range of organizational research, like the investigation of organizational culture and strategy, leadership styles and effectivity, organizational development, human resource development and the life cycle of organizations (Bluedorn & Lundgren, 1993; Cameron & Freeman, 1991; DiPadova & Fearman, 1993; Quinn & Kimberly, 1984; Quinn & McGrath, 1985; Zammuto & Krakower, 1991). Also, the framework was at the basis of a study concerning the effectiveness of management information systems (Cooper & Quinn, 1993), commitment of employees (McGraw, 1993), communication within organizations (Rogers & Hildebrandt, 1993) and transformation of organizations (Hooijberg & Petrock, 1993). The framework has not often been tested in school settings, but we can learn a lot from experiences with the testing of the framework in other areas. We will shortly describe the most important testings below.
Quinn and Spreitzer (1991) conducted a study amongst 796 managers of 86 organizations for public services (electricity, gas etc) and examined the validity of the Competing Values Framework as a model to measure organizational effectiveness. Later, their measurement scale to test and report the psychometric properties of the Competing Values Framework was used by others that build on this work to test the structure of it.

In their study, Quinn and Spreitzer (1991) interpreted the four models of the framework as four latent dimensions of the construct ‘organizational effectivity’ and tested the psychometric characteristics by means of two different analyses: a multitrait multimethod analyses and multidimensional scaling techniques. The results supported the Competing Values Framework empirically.

Even though the Competing Values Framework was used to examine several aspects of the functioning of organizations, for this study the applications in the area of leadership styles and effectivity and organizational culture are of main interest. Therefore we will go deeper into these studies and link as much as possible to educational research in which the framework was used.

Four factor model

Kalliath, Bluedorn, and Gillespie (1999) tested the framework on the cultural level collecting data from 300 managers and supervisors employed by a multi hospital system located in a large city in the United States. They used structural equation modeling (SEM) to test the viability of the framework, considering the framework a four-factor model. Kalliath et al. point out that the Competing Values Framework suggests that each latent dimension of the organizational effectiveness construct shares varying degrees of the two superordinate value continua: internal/external (I/E) orientation and flexibility/control (F/C). ‘Conceptually, the distinctive feature of each latent dimension is the unique ratio in which F/C and I/E continua are operating in each dimension. For example, the human relations and open system dimensions share the value of flexibility; the open system and rational goal dimensions share an emphasis on an external orientation; the rational goal and internal process di-
mensions have a common emphasis on control; and the internal process and human relations dimensions share the value of an internal focus’ (see figure 2.1). Two dimensions that share the two subordinate continua are not orthogonal and dimensions that are located in opposite quadrants do not share any common superordinate values.

Although Quinn and Rohrbaugh (1983) present these two dimensions as bi-polar continua, in fact, these two continua can also be seen as four different factors or dimensions: Internal (I), External (E), Flexible (F) and Control (C). In their attempt to test the Competing Values Framework, Kalliath et al. (1999) also implicitly presuppose the existence of these four factors, since they fit a model consisting of four quadrants and not a two factor model and because they hypothesize adjacent quadrants to show higher correlations than quadrants that do not share an underlying factor (I, E, F or C). For instance, human relations and internal process share the I-factor, but internal process and open system do not share a common underlying factor (cf. fig 2.1). Kalliath et al. formulated 6 hypothesis that can be deduced from this view.

Hypothesis 1: the correlation between the CVF latent constructs human relations and open system values will be greater than zero, positive, and of moderate magnitude.

Hypothesis 2: the correlation between the CVF latent constructs open system and rational goal values will be greater than zero, positive, and of moderate magnitude.

Hypothesis 3: the correlation between the CVF latent constructs rational goal and internal process values values will be greater than zero, positive, and of moderate magnitude.

Hypothesis 4: the correlation between the CVF latent constructs internal process and human relations values values will be greater than zero, positive, and of moderate magnitude.
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Hypothesis 5: the correlation between the CVF latent constructs human relations and rational goal values will be zero, or close to zero.

Hypothesis 6: the correlation between the CVF latent constructs internal process and open system values values will be greater than zero, or close to zero.

Kalliath et al. (1999) used four items to measure each competing values quadrant. Their items were based on the original 16-item scale developed by Quinn and Spreitzer (1991). In Kalliath et al. (1999) the model shows an exact fit ($\chi^2 = 111.14; \text{df}=99; p=.19$). However their results do not completely confirm the above hypothesized correlations. No support was found for hypothesis 6. They found a very strong correlation indeed ($r = .73$). Their explanation lies in the turbulence of the American health care industry at the time of the study. According to Kalliath et al. organizations became proactive to the changes in their environment (open system) in order to re-obtain stability and order (internal process). It is possible, they hypothesize, that the organizations are stable and dynamic at the same time. They point out that the Competing Values Framework does contain this possibility, in fact, it is one of the strengths of the framework: it acknowledges that managers need to meet opposing demands in their work. Overall, they conclude that their results, using SEM, represent general support for the Competing Values Framework as a valid theoretical framework for describing leadership behavior.

*Facet design*

Kalliath et al. choose to consider the Competing Values Framework as a four-factor model. There is also another possibility, namely to think of it as a facet design. In this view, each item loads on two aspects, or dimensions. Within the facet design, there are two options.

First of all, it is possible to assume that the framework consists of two bipolar factors: the Internal-External factor and the Control-Flexibility factor. A weakness of this approach is the bipolarity
of the factors. It supposes that Internal and External are two extremes of one dimension and Control and Flexibility too. This is not very logical, because it excludes the idea that a person can be oriented towards internal and external processes at the same time. Even Quinn and Rohrbaugh themselves point out that it is possible to score on three or four of the dimensions. Therefore we do not follow this logical inconsistency.

The second option within the facet design is to interpret the Competing Values Framework as composed of four separate factors, namely a factor Internal, a factor External, a factor Control and a factor Flexibility. This view makes it possible to score high on the internal and on the external dimension at the same time. A manager can stress stability and documentation within the organization on the one hand and be innovative on the other hand. This is in line with Quinn’s theory that a good manager scores high on all quadrants. The managers get a score on each of the four dimensions, which for example can result in a manager with a high score on internal and external, a moderate score on flexibility and a low score on control. The manager is likely to display different behavior in different situations, as stated in the contingency theory. In this perspective too, we have to assume that each item loads on two of the four factors. An item within the rational goal model scores on the control and internal factor, an item that belongs to the internal process model, is part of the internal and control factor, a human relations item scores on the internal and the flexibility factor and an item from the open system quadrant scores on the external and flexibility factor.

Overall, we can conclude that the Competing Values Framework has proven to be a valid instrument to measure leadership. Scholars using the framework confirm the existence of the eight management roles and they also affirm the positive relationship between leader effectiveness and behavioral complexity. We therefore believe the Competing Values Framework is an appropriate tool for measuring school leadership in this thesis. In the above we have mentioned two models that are in contrast with each other. First, there is the model as proposed by Kallith et al., in which each
of the four quadrants is understood as a separate factor and secondly there is the facet design, which can be seen as a two- or a four factor model. We will test our data on school leader behavior using both models mentioned above.

The different settings in which the Competing Values Framework was tested match with the chain of variables we consider important in school leadership. In our view, to measure school leadership we need an integral model that considers the cognitive processes (roles), the context and the behavior of the leader. Further, we need an indirect-effect model, because the effect of school leaders on student outcomes is an indirect effect that runs through the structure and culture of the school (see section 1.4). When measuring the effects of school leadership, the structure and culture of the organization are essential, factors that are included by the University of Twente in the other part of this larger research project. From this point of view, the Competing Values Framework is also apt for measuring school leadership. It has been applied to test the roles of managers, to examine their behavior and to know more about the culture of an organization. Therefore it covers almost all the elements of the integral model. The only factor that is not covered by the Competing Values Framework is the context in which leaders operate. This is a shortcoming, because the context of the school plays an important role in school leadership. According to the integral perspective of Leithwood (1995), factors in and outside the school influence the mental processes and behavior of school leaders. Hallinger and Heck (1998) found more consistent patterns of effects on student outcomes when antecedent variables were included. In this thesis we use the Competing Values Framework to measure the role perception and behavior of the school leader, and - in addition- we examine the context of the school. The next section will go deeper into the importance of context in school leadership research and we will elaborate on the importance assigned to contextual factors in school leader effectiveness.
2.6 The importance of context in school leadership

The importance we ascribe to context in leadership effectiveness research is not new. Early leadership research was based on great-man theories, in which it was believed that only the personal characteristics of the leader determined whether he/she was effective, but soon other factors, like the context of an organization, were taken into account to measure the effectiveness of a leader. As mentioned in section 1.1.4, Fiedler (1967) was one of the first writers that anticipated to contingency thinking. We described that according to him, the effectiveness of a leadership style depends on the situation. Styles are relatively stable, but their effectiveness depends on the situations. The mental legacy of Fiedler can also be recognized in educational sciences. In educational leadership studies it is also believed that no single style of management is appropriate for all schools (Bossert et al., 1982). Principals must adjust their strategies to the local situation. The contingency theory assumes a link between context variables and school leader behaviour. More recent, the importance of contextual factors in school leadership was pointed out by Neumann and Bensimon (1990), Heck (1993) and Leithwood et al. (1990). Hallinger (2003) claims that ‘effective leaders respond to the changing needs of their context. Indeed, in a very real sense the leaders’ behaviors are shaped by the school context’.

Despite of the acknowledgement of the importance of context variables, scholars have given inadequate attention to the influence of the organizational context on educational leaders (Hallinger, Bickman, & Davis, 1996). Hallinger et al. (1996) state that antecedents (personal and contextual) are essential in understanding the nature of school leadership, and that they are left aside too often. Their study confirms previous calls for more research on antecedents and the context of the school (Bridges, 1982; Goldring, 1986, 1990; Heck, 1993; Leithwood et al., 1990; Murphy, 1988). Hallinger and Heck (1996, 1998) also refer to the lack of interest in the context of the school. The results of the study of Krüger, Witziers and Sleeegers (2007) suggest that a contingency approach to leadership could be useful in understanding the paths through which the school
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leader influences school effectiveness. They advise to include the contingent characteristics of school leadership into future studies concerning the effects of school leadership on school effectiveness.

Leithwood (1995) reasons that the mental processes of a school leader are influenced by factors in- and outside the school. These factors can be divided in three categories of antecedents. (Bossert et al., 1982; Hallinger et al., 1996):

- characteristics of the school context
- characteristics of the school
- personal characteristics

These three types of antecedents will be discussed in the sections below.

2.6.1 Characteristics of the school context

Schools are no isolated institutions and school leaders are influenced by the context in which their schools operate. There are many expectations and demands from society and school leaders have to find ways to deal with them. All this needs to be done within the boundaries of national policies. The past two decades a major development in the context of schools, was the process of deregulation and decentralization. This had great impact on the jobs of school leaders. We will discuss these administrative changes and look at the demands from the environment of the school.

Context of deregulation and decentralisation

The context of the school is one of the factors that affects leadership. Interestingly, the role of school leaders in the Netherlands has significantly changed over the past few years due to changes in the context of the school. The national government, as well as many other countries (OECD, 2008), modified its educational policy from centralized to decentralized and started to deregulate at the same time. Less rules were imposed and schools and school leaders became more autonomous in their decision making. Schools acquired more freedom in decision making concerning educational, organizational and financial affairs, thus enhancing the number of tasks of school leaders and making their job more com-
plex. School leaders used to receive a set amount of money for each type of affair and invoiced their expenditures to the local or national government, but now they receive a ‘lump sum’ or block grant and can spend their budget according to the specific needs of their own school. This freedom comes with a higher accountability; schools are held more accountable for results. Hooge (1998) defines deregulation as ‘the withdrawal of the government from certain policy areas in favor of the augmentation of the scope for policy making of the local authorities and internal sections of the school’. She found that decentralisation has more effect on independent schools than on schools that are part of a cluster of schools. In the latter, the board of directors manages most affairs.

The recently gained autonomy, in combination with tradition competition between schools in the Netherlands, requires that schools stress their distinctive features. They should focus more on the world around them. Differences between schools are emphasized. In order to do so, schools need to have both an internal and external orientation (Krüger, 2000). School leaders are no longer followers and obeyers of government rules in the first place, but they have become policy makers themselves. Overall, the autonomy resulted in an increased complexity of school leadership. Not only do school leaders have to fulfill more tasks, they also have an enhanced accountability; school leaders are assessed more on their student outcomes, but how these outcomes are attained is up to them. The role of school leaders has changed and new competences are required.

The same development can be seen in other countries. In the mid-1980’s in the United States systematic restructuring of schools in order to improve academic performance was encouraged by site (or school)-based management (SBM), a policy that moves decision making from the central to the local level. Malen, Ogawa and Kranz (1990, p. 2) defined site-based management as follows:

“It can be viewed conceptually as a formal alteration of governance structures, as a form of decentralization that identifies the individual school as the primary unit of improvement and relies on the redistribu-
More authority at school level enables teachers, parents and students to participate in the process of decision making (Tanner & Stone, 1998). By involving the people that are responsible for carrying out the decisions, it is more likely that they will support and implement the decisions that are made.

Site-based management reshapes the role of school leaders. School leaders are faced with changes in the internal dynamics of the school, and also in the relations with the external environment. The relationship between schools and their external environment has become more complex (Ortiz & Ogawa, 2000) and school leaders need to include others in the process of decision making (Goodman, 1994). Wohlstetter and Briggs (1994) underline the new role of school leaders in which they empower others instead of making decisions by themselves.

Although site-based management was originally invented to improve academic performance, it’s actual impact on conditions in school can be questioned. Several scholars have concluded that site-based management fails to change relations between participants, only temporarily increases morale, does not improve the quality of decision-making and planning, and fails to increase instructional innovation and adaptation (Malen et al., 1990).

The empowerment of others in site-based management can lead to a style of management in which leadership is distributed over several persons. The school leader is then no longer the only person who makes decisions; choices are made by more than one person. In literature is it often assumed that school leadership is assigned to more than one person in the organization (Davies 2004; Davies & Davis, 2004; Imants, Sleegers, & Witziers, 2001). This is referred to as distributed leadership (Leithwood, Jantzi, Earl, Fullin, Levin, 2004; Wassink, Sleegers, & Imants, 2004). According to Ogawa and Bossert (1995) leadership is spread throughout the whole organization. It is an organization wide phenomenon. Not only the school leader pursues influence, so do the teachers and
parents. This insight can be seen as a plea for indirect-effect models. Influence is exercised through other people.

In most countries the school leader still has exclusive authority in matters concerning the participation of teachers. Despite all the research on distributed leadership and the large number of adepts, and because of the many countries that do not have distributed leadership, the construct can be questioned. Without the support of the school leader, others do not have much options to contribute to the organization (Wallace, 2002). Smylie and Hart (1999) stress that in the end all decisions within an organization will be taken by one person. The school leader initiates all change. He or she is in the formal position to do so and is therefore an important key person. Other colleagues expect the school leader to make the final decision. Every change, even in a situation of distributed leadership, is caused by a leader (in a perfect situation the school leader) with a vision. This person is crucial when it comes to en- thusiing others (cognitive perspective). Wallace (2002) found that the members of a senior management team in the United Kingdom all acknowledged the school leader as the highest in the hierarchy; they still had one leader. Locke (2003) states that in order to be successful as an organization, you need one leader, not a team.

‘No successful, profit-making company that I know of has even been run by a team’ (p.273).

Context: demands from the environment

The deregulation and the expanded complexity of the school leaders’ role as a result of a more heterogeneous and competitive context contributed to a large amount of research in this area. It raised questions about the way in which schools are administrated. How does the process of deregulation affect the role perception of school leaders and how does it affect their actions? It is clear that the change in government policy stresses the importance of research in this area. We need to know the influence of context factors on the behavior of school leaders.

The many changes in the context of the school placed a heavy load on the school leader. He/she could no longer depend on
one type of behavior or leadership style to cope with all the demands from the environment. Nowadays school leadership requires multiple competencies in order to deal adequately with the divers and sometimes contradicting demands.

Quinn and Hilmer (1994) define a competency as the ability of a person to perform tasks adequately and to come up with solutions and realize them in daily practice (Heymans, Pelkmans, Sleeegers, & Somsen, 2002). In other words: a competency is an integrated entity of knowledge, skills, attitudes, and personal traits. In order to acquire a competency leaders have to tune their vision, personality, activities and style to each other and integrate them. For this purpose they need to base their knowledge not only on literature, but also on information obtained from the school and its context. The effectiveness of the leader depends on his/her ability to respond appropriately across different dynamic organizational requirements (Zaccaro, Gilbert, Thor, & Mumford, 1991). Leaders must be able to display a range of different leadership styles.

As mentioned in chapter 2.4, Denison et al. (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, within a beforehand determined taxonomy. The more types of behaviors a person displays, the higher his/her behavioral complexity. Quinn and Rohrbaugh (1983) state that behavioral complexity is a requisite for leadership effectiveness.

School leaders in the Netherlands, like managers in other sectors, also experience conflicting roles: on the one hand they need to make decisions about educational matters and develop a vision on how to organize the school and curriculum, on the other hand they have to deal with the multitude of tasks that comes with the new complexity and growth of their schools. It takes so much time to be a general manager in these new large schools, that there is not enough time to be an educational leader (Krüger, Witziers, Sleeegers, & Imants, 1999). The Commission Evaluation Primary Education (1994) indicated that principals need to be more like managers, instead of teachers with extra tasks, and that they need to spend more time thinking about the content of education. To facilitate this,
multi-school management was invented. The multi-school management takes over the general management tasks and the principal gets to focus entirely on the curriculum. This makes it possible for the school leader to practice instructional leadership.

Another characteristic of the school context is the competitive environment of the school. Pelkmans and Van Kuijk (1986, p. 67) performed qualitative research and conclude that schools with a good reputation have a tendency to cooperate less with other schools and to make less agreements on PR and student enrolment than schools that do not have a good reputation. A study in policy making by schools in secondary education by Sleegers (1991, p.117) shows that schools that experience more rivalry make more policy than other schools. Because of this competitive environment school leaders feel the urge to promote their schools and bring in more students. This drive may be the reason why the school makes more policy in all sorts of areas. Hooge (1998) examined the competitive environment in schools for primary education in the Netherlands and in her study most schools do not experience a hostile competitive environment. She also found that 2/3 of the schools do not encounter competition from other schools. The competition that is encountered, can be addressed to factors like the different base of other schools, the PR, the location of the school, the image of the school and the background of the students.

2.6.2 Characteristics of the school

The second category of antecedents that affects the behavior and mental processes of school leaders consists of characteristics of the school. School factors are often considered important in school effectiveness and school leader effectiveness. Bosker and Witziers (1996) found in their multilevel meta-analyses of 103 studies that, on average, schools account for 18% of the achievement differences between students, and for 8% when adjusting for initial differences between students. They conclude that schools matter.

Many scholars acknowledge the importance of context variables in school leadership research (Hallinger, Bickman, & Davis, 1996; Hallinger & Heck, 1996, 1998; Heck, 1993; Leithwood et al.,
1990; Krüger, Witziers, & Sleegers, 2007), but not much research has been done in this area. There is a lack of information about the effects of context variables on the mental processes of the school leader or on his/her behavior, because most research focusses on the influence of context variables on the effectiveness of schools. In this thesis we are interested in the -less examined- influence of antecedents on school leadership instead of the influence on student outcomes. Research focusing on student outcomes - as conducted by the University of Twente in one of the other projects of the research programme - however, is useful in determining which school factors may play a role.

Opdenakker and Van Damme (2006) developed a model which assumes that effort and achievement of students are related to characteristics of the students themselves as well as to characteristics of classes and schools. Opdenakker et al. distinguish three kinds of school characteristics: characteristics referring to the composition of schools (student population, teaching team and school leader), characteristics referring to the school practice (educational framework, organisation and management, work and learning climate), and context characteristics (denomination, school size, study program offerings). They found that schools for secondary education differ with respect to composition, outcomes, relational climate, and indicators of organization and management. School composition, the relational and learning climate and the opportunity to learn mathematics have a significant positive effect on student achievement in mathematics at the end of the second grade. School size does not influence student outcomes, but denomination of the school does have an effect on student outcomes. Catholic schools perform slightly better than public schools on mathematics achievement. However, it is a small effect and it disappears when student background is taken into account. SES (socio-economic status) and parent participation also appeared to be important factors in effective schools in their study.

Even though the size of the school does not directly affect student outcomes, it is of significant importance to schools. Lindsay (1982) reported higher attendance rates for high school students in
smaller schools. Finn and Voelkl (1993) confirmed these findings. They found a correlation between low levels of participation among at-risk students in low-level schools. The effects for school size turned out to be the most consistent findings. Everything is better in small schools: better classroom participation, less student absence, and a warmer and more supportive environment according to the students. Fowler (1992) found that a greater effectiveness in the elementary grades seems to be achieved in smaller schools.

Also, school size influences the school leader. School leaders at schools that are part of a group of schools, have more time for educational tasks. This may have to do with multi-school management. General management tasks are usually the responsibility of the multi-school management, thus creating more time for school leaders at the individual school level to exercise educational leadership.

Another context factor that is explored in school effectiveness research and also in leadership studies, is Socio Economic Status (SES). School effectiveness studies indicate that SES is one of the most powerful predictors of educational attainment (Eccles et al., 1993; Haller & Portes, 1973; Spender & Featherman, 1978). Higher Socio Economic Status leads to better results. Opdenakker et al. (2006) discovered that Socio Economic Status is an important factor in effective schools.

Much research had focused on the extent to which the effect of Socio Economic Status on school performance is influenced by the school contexts. School context can affect the strength of its relationship with specific educational outcomes (Griffin & Kalleberg, 1987; Ianni, 1989; Raudenbush & Bryk, 1989). Portes and MacLeod (1996) found the SES of parents has a strong effect on the academic achievement of students. Also, attendance at higher-Socio Economic Status schools increases average academic performance and it increases the positive effect of parents’ Socio Economic Status. Thus, students from high-Socio Economic Status families perform even better at high Socio Economic Status-schools. School contexts reinforce rather than reduce inequalities in achievement.
The results of a study by Rowan and Denk (1984) show that the impact of school leadership depends on the Socio Economic Status of the students in a school. They found that the effects of leadership were significantly present for low-Socio Economic Status schools, whereas in high-Socio Economic Status schools the relationship was negligible. This means that at schools with a relatively great population of students with a low-Socio Economic Status the school leader plays a more important role. In schools with a large proportion of students with a high Socio Economic Status, it matters less who the school leader is and what he or she does.

Student Socio Economic Status also matters in a different way; it influences the type of leadership school leaders practice (Goldring, 1986, 1993; Hallinger & Murphy, 1986a, 1986b; Heck et al., 1990). Hallinger (2003) points out from a contingency perspective: poor urban elementary schools ask for strong educational leadership. However, according to Hallinger, Bickman and Davis (1996) school leaders in schools with a high Socio Economic Status exercise more active instructional leadership than school leaders in lower Socio Economic Status-schools. Earlier, Hallinger and Murphy (1986) found that principals of both high and low Socio Economic Status-schools were instructional leaders. The form of leadership though, was adjusted to the needs of the school. School leaders in the low Socio Economic Status effective schools had clear measurable goals aimed at student achievement and supported by the school and community. School leaders at high Socio Economic Status effective schools also had an academic mission that was supported by the staff, students and parents, but their missions were put more broadly and sometimes not measurable at all.

We are mostly interested in the antecedents that influence the school leader and the above studies show that the behavior of the school leader, or the extent to which he/she practices instructional leadership is affected by student Socio Economic Status and school size.
2.6.3 **Personal characteristics of the school leader**

The last category of antecedents affecting the behavior and perceptions of school leaders holds characteristics of the school leader. Gender, prior experiences at school, educational background and other features of the school leader may influence his/her thoughts and behavior.

Gender is a common variable in school leadership research and it is examined in various ways, for example in relation to age or to leadership style. Research indicates that on average male school leaders are younger (Leithwood et al., 1990; Hallinger, Bickman, & Davis, 1996). Men tend to seek school leadership earlier in their careers (before age 30) and aspire superintendency as a career move (Leithwood et al., 1990).

Men and women also seem to differ in their job as a school leader. Bossert, Dwyer et al. (1982) point out that a number of studies suggest that women are better principals than men. In section 1.2.2 it was set out that instructional leadership is more effective than administrative leadership. Hallinger, Bickman and Davis (1996) found that women consider themselves more as an instructional leader and men consider themselves more as a general manager or administrative school leader. School effectiveness studies show that women are indeed more actively involved in instructional leadership than men (Adkinson, 1981; Glasman, 1984; Gross & Trask, 1976; Hallinger & Murphy, 1985, Krüger, 1994, 1996, 1999). Even the choice to become a school leader is determined for women most importantly by their wish to be an instructional leader. Men make that decision based on the salary (Newton, Giese, Freeman, Bishop, & Zeitoun, 2003; Young & McLeod, 2001). Men and women also adopt a different management style. Krüger, Van Eck and Vermeulen (2005) studied the premature departure of school leaders and found that the female school leaders experience more premature departure than do male school leaders. However, there were no gender differences between the men and women who had left. All prematurely departed school leaders had a management style with a stronger focus on human relations, educational and instructional matters and a smaller orientation towards administration. In
order to answer the question why women tend to leave prematurely more often, Krüger et al. identified risk factors in personal characteristics of the school leader, in the working environment of the school, and in the culture of the school. Examples of risk factors are the specific position of the school leader as intermediate between the governing body and staff, lesson tasks and the lack of management training. She concluded that ‘women more often come into contact with the same risk factors as men’. Also, teachers are less familiar with leadership styles that focus on instructional leadership and human relations, and those styles are more often emphasized by women than by men. This is in line with earlier findings of Hallinger, Bickman and Davis (1996). They found that a relatively large proportion of women consider themselves more as an instructional leader and a larger proportion of men consider themselves more as a general manager.

There is also a relationship between instructional leadership and prior teaching experience. The more years of experience in teaching a school leader has, the more instructional leadership activities he/she exercises (Eberts & Stone, 1988; Glasman, 1984; Hallinger, 1983; Leithwood et al., 1990). Hallinger, Bickman and Davis (1996) did not find a correlation between teaching experience and school leadership in general. Nor was a relationship found between education and effective school leadership (Bossert et al., 1982).

Conclusion

As we have seen in the first chapters, school leadership is a complex concept that requires examination from multiple perspectives. Integral models provide a good tool for this purpose. They allow us to study the behavior of school leaders, as well as their mental processes, and antecedent factors that influence the behavior and mental processes. Also, integral models give more insight in the relationship between those factors. Research indicates that the effects of school leadership can best be measured by means of indirect-effect models. The integral indirect-effect model of Bossert et al. (1982) serves as a good instrument to frame a study of leadership, but its definition of a good school leader is too restricted, because it
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assumes that there is one type of effective leader. The Competing Values Framework of Quinn and Rohrbaugh (1983) starts from a perspective in which leaders must fulfil multiple roles in order to be effective and therefore offers a useful addition to the model of Bossert et al. The Competing Values Framework is an established valid instrument to measure leadership, and contains different aspects we consider important for studying school leadership. The limitation of the Competing Values Framework is the lack of contextual factors. Research indicates that factors in and outside the school affect the school leader and the effects of school leadership (Leithwood, 1995; Hallinger & Heck, 1998). Therefore, we include the context in our model. The model will be presented in chapter three.