

An Exploration of Relationships Between Leadership and Student Citizenship Outcomes in Cyprus Middle Schools

Educational Administration Quarterly
2016, Vol. 52(3) 497–526

© The Author(s) 2016

Reprints and permissions:
sagepub.com/journalsPermissions.nav

DOI: 10.1177/0013161X16638415

eaq.sagepub.com



Vassos Savvides¹ and Petros Pashiardis¹

Abstract

Purpose: The main purpose of this study was to explore direct and indirect relationships between Leadership and Student Citizenship Outcomes in Cyprus middle schools. In the case of indirect effects the mediating role of School Academic Optimism and Instructional Quality was examined.

Method: The specific study adopted a value-added quantitative design. Student achievement data were collected at the beginning and end of the term during which the subject of Citizenship Education was taught. Students also provided data about the quality of instruction, whereas teachers provided data about leadership and school academic optimism. Overall, a multistage sample of 20 middle schools, 114 classes, and 1,596 students participated in the current study. Multilevel modelling and single-level regression techniques were used to identify the relationships between the main variables of this study. **Findings:** A number of contextual student variables and one classroom variable were found to have a direct effect on citizenship outcomes. Neither School Leadership nor School Academic Optimism were found to have any direct or indirect effect. However, school leadership, along with a number of contextual variables, was found to have statistically significant effects on School Academic Optimism. **Implications:** The findings highlight the importance of the learning domain when searching

¹Open University of Cyprus, Latsia, Nicosia, Cyprus

Corresponding Author:

Vassos Savvides, Open University of Cyprus, PO Box 12794, 2252 Latsia, Nicosia, Cyprus.

Email: savvides@ouc.ac.cy

for effectiveness factors at the classroom and school level. It is suggested that the subject of citizenship education is upgraded and principals as well as teachers are substantially supported to promote the subject goals.

Keywords

school leadership, student citizenship outcomes, school academic optimism, instructional quality, middle schools

Introduction

As we move through the 21st century we experience a rapidly changing environment characterized by complexity and uncertainty. Socioeconomic forces, including an ongoing economic crisis, inevitably infiltrate and influence educational organizations making them much more dynamic places to manage (Day, 2011). In this context, the role of the school principal is becoming increasingly difficult to perform. The once restricted functions of a bureaucratic administrator seem to give way to a new, broader, and more demanding set of tasks that goes beyond what one single individual can handle (Day, 2011; Sebastian & Allensworth, 2012). Today's school leaders need to monitor the processes of teaching and learning, handle financial and human resources, build networks and coalitions, engage in quality management and public reporting processes, and provide leadership for training their staff.

Most important, principals need to be able to demonstrate their effectiveness by showing improvement in student learning (Brauckmann & Pashiardis, 2011; Pashiardis, 2014). Student achievement has traditionally been associated with (primarily) educational effectiveness criteria such as literacy and numeracy. However, the scope of the principal's work exceeds these subject matters. Principals also need to create the conditions for the development of active and responsible students who will be prepared to undertake their role as future citizens. Educational leaders, thus, need to widen the students' learning opportunities by focusing on nonconventional effectiveness criteria, such as citizenship education outcomes.

During the past few years there has been an international concern about the nature and measurement of citizenship learning. International studies, such as CIVED (Civic Education Study) and ICCS (International Civic and Citizenship Education Study), seek to address the issue of how well prepared students are to act as responsible citizens by measuring their citizenship competencies (Schulz, Ainley, Fraillon, Kerr, & Losito, 2010; Torney-Purta, Lehmann, Oswald, & Schulz, 2001). Although these studies have identified a number of factors explaining variation in student outcomes, school leadership has not

been included as a likely predictor. To date, we have some evidence from qualitative case studies that link aspects of school leadership to informal learning of active citizenship at school (Pashiardis, Georgiou, & Georghiou, 2009; Scheerens, 2009, 2011). A further step was therefore deemed to be important, that is, exploring the quantitative association between leadership behavior and student citizenship learning.

Quantitative leadership effects research has considerably progressed, yet we still lack systematic empirical validation of different models (Bruggencate, Luyten, Scheerens, & Sleegers, 2012; Krüger, Witziers, & Sleegers, 2007; Mulford & Silins, 2011). Earlier studies focused on the direct effects models yet more recent research has shown that school leadership influences student outcomes mostly in an indirect manner. Thus, along with the direct effects model, a need was identified to explore an indirect effects model as well, incorporating key school and classroom factors as mediators between leadership and student citizenship outcomes. The mediating variables that were included in this study (i.e., School Academic Optimism and Instructional Quality) were previously found to have a strong effect on student achievement mainly due to their academic and instructional orientation (Creemers & Kyriakides, 2008; McGuigan & Hoy, 2006).

To sum up, the main purpose of this study was to explore the relationship between School Leadership and Student Citizenship Outcomes in Cyprus middle schools. More specifically, the study sought to address the following research questions:

Research Question 1: Is there a direct relationship between school leadership, as defined in the Pashiardis–Brauckmann Holistic Leadership Framework, and Student Cognitive Outcomes in Citizenship Education?

Research Question 2: Is there an indirect relationship between School Leadership and Student Cognitive Outcomes in citizenship education mediated by School Academic Optimism and/or Instructional Quality?

Research Question 3: Can we develop and validate a comprehensive model of School Leadership Effects on Student Cognitive Outcomes in Citizenship Education?

The research aims were stated in an exploratory form in an attempt to identify an initial theoretical set of relationships between the key variables of the study. This was deemed necessary since there is limited empirical knowledge regarding the effectiveness of school leaders in promoting citizenship education outcomes. The emerging outcomes are expected to inform the connectedness of various theoretical orientations that include school leadership, educational effectiveness and improvement, and citizenship education, in an effort to further advance theoretical orientations in the field.

The Theoretical Framework

Researchers in the area of educational administration have attempted to identify links between leadership and educational effectiveness. According to a number of researchers, the way in which the effect of school leadership on achievement is conceptualized bears an autonomous influence on the findings (De Maeyer, Rymenans, Van Petegem, van den Bergh, & Rijlaarsdam, 2007; Scheerens, 2012). Based on the main research trends of leadership effects, three main causal models of leadership effects on student outcomes can be discerned (Hallinger & Heck, 1998, 2011; Levacic, 2005): the direct effects, the indirect effects, and the reciprocal effects models.

Model A: Direct Effects Model

The first model supports that leadership has a direct impact on student outcomes, adjusting for prior attainment. An extended Model A includes antecedent variables, that is, school context variables, which may affect student outcomes directly or affect leadership as well. Direct effects models do not provide consistent evidence of leadership effects on student learning. According to Hallinger and Heck's (1998) review, direct effect studies mainly reported insignificant effects of leadership on student outcomes. More recent studies also failed to identify significant leadership effects (Krüger et al., 2007; Shin & Slater, 2010), whereas other studies report small but significant effects (Kythreotis, Pashiardis, & Kyriakides, 2010).

The direct effects model has been criticized for failing to consider the complex processes by which principals influence school effectiveness and thus revealing very little about how leadership operates (Huber & Muijs, 2010). On the other hand, Nettles and Herrington (2007) maintain that the intense performance requirements and accountability initiatives necessitate that the direct effects of principals—however small—should be understood and exploited.

Model B: Indirect Effects Model

The indirect or mediated effects model asserts that leadership affects student outcomes through intervening variables such as school culture, organization, teacher norms, and practices in the classroom. These models are often expanded by adding antecedent variables. According to Leithwood (2012), school leaders' indirect effects depend on the extent and nature of their influence on key mediating variables that are alterable through their direct intervention. Such effects are dampened or enhanced by moderators such as students' socioeconomic status (SES).

Indirect effects models have shown more promise in capturing the complex organizational dynamics of schools. Scheerens (2012) argues that these models have intuitive appeal since principals are expected to function at a certain distance from teaching and learning. Moreover, they are expected to facilitate these core processes via a range of school conditions. Hallinger and Heck's (1998) review of 40 studies published between 1980 and 1995 concludes that principals exercise a measurable, though indirect, effect on school effectiveness and student achievement. They also reveal the paths through which principals influence student learning. These paths included school goals, school structure and social networks, people, and organizational culture. In other reviews of leadership effects research (Day et al., 2010; Leithwood, Day, Sammons, Harris, & Hopkins, 2006), it was highlighted that school leaders improve teaching and learning indirectly and most powerfully through their influence on staff motivation, commitment, and working conditions.

Model C: Reciprocal Effects Model

This is a dynamic model in which leadership affects mediating variables and student outcomes but it is in turn affected by them. It can only be investigated by observing the long-term interactions between leadership, mediating variables, and student outcomes. According to Hallinger and Heck (2011), this model "may provide a complementary and, perhaps, more comprehensive picture of the processes at work in leadership for learning" (p. 167). The reciprocal effects model is rarer to find in leadership effect studies (Hallinger & Heck, 2011). Progress in testing reciprocal effects models has been hindered by methodological challenges such as the adoption of more complex longitudinal designs.

In the case of this study, the direct and indirect effects models were tested. The reciprocal effects model could not be tested since Citizenship Education outcomes could not be traced over a longer term basis. According to the proposed framework (Figure 1), Student Citizenship Outcomes are hypothesized to be influenced directly and/or indirectly by School Leadership. Academic Optimism and Instructional Quality form the mediating variables through which leadership effects could seep through to student learning. The framework of this study also acknowledges that school leaders do not operate in a vacuum (Pashiardis, 2014). On the contrary, their actions are hypothesized to be influenced by the particular context in which they work. The context framework entails both school-level and student-level variables. The first set of variables is likely to have a moderating effect on leadership effects, while the second set of variables is likely to affect directly the dependent variables and therefore should be controlled for.

Since the lack of consistency in findings on school leadership effects is largely owed to the use of varying frameworks and models, it was decided to

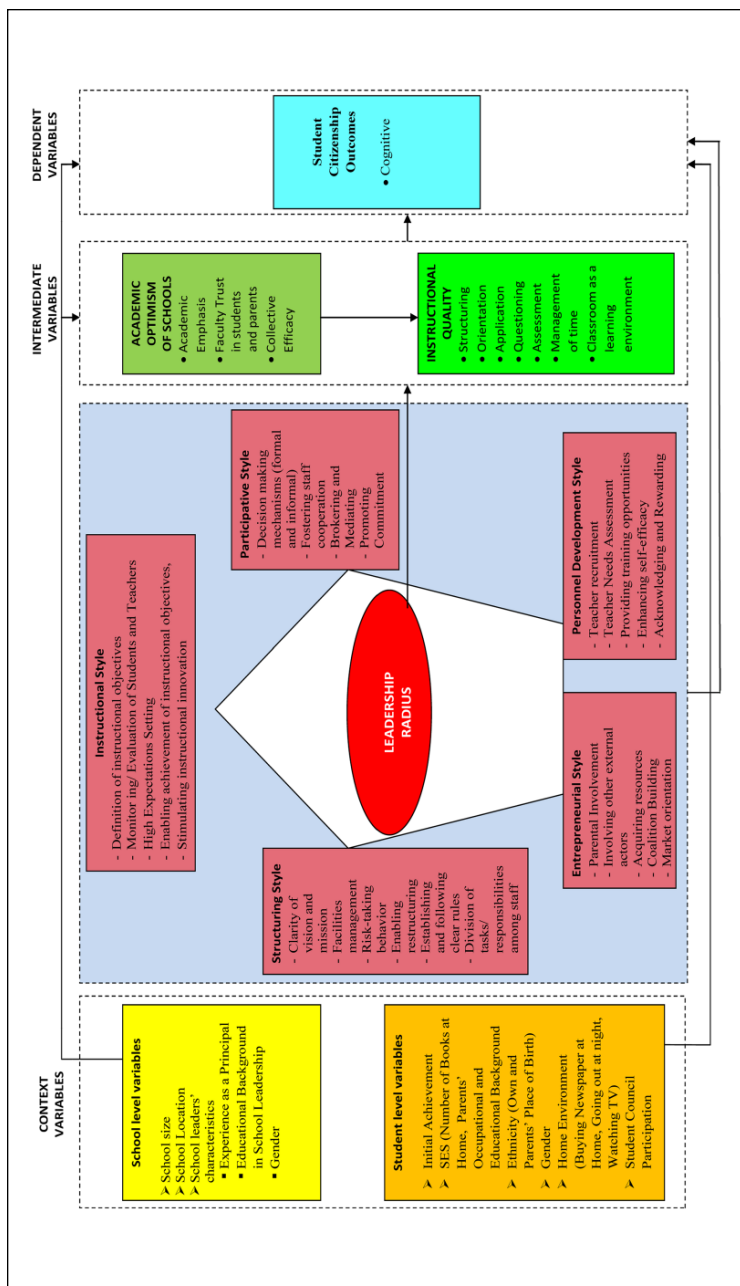


Figure 1. The Pashiardis-Brackmann modified holistic leadership framework.

Note. SES = socioeconomic status.

Table 1. Leadership Styles as Defined in the Pashiardis–Brauckmann Holistic Leadership Framework.

Leadership Styles	Definition
	<i>The set of leadership behaviors and practices that . . .</i>
Instructional	focus on the improvement of the quality of teaching and learning.
Structuring	provide direction and coordination to the school unit.
Participative	promote the participation of school members in decision making and provide opportunities for cooperation.
Entrepreneurial	promote the involvement of external actors and resources in the school affairs.
Personnel development	promote the professional development of teachers.

use as a reference base the comprehensive Pashiardis–Brauckmann Holistic Leadership Framework (Brauckmann & Pashiardis, 2011; Pashiardis, 2014). This framework is in line with the more integrated models of leadership that incorporates a broader set of practices and behaviors (Bruggencate et al., 2012). The specific framework entails a second-order factor of school leadership, that is, the Leadership Radius, which consists of five first-order factors. The first-order factors refer to five leadership domains or styles that school principals are likely to employ in their work: (1) Instructional Style, (2) Structuring Style, (3) Participative Style, (4) Entrepreneurial Style, and (5) Personnel Development Style. Each leadership style consists of specific behaviors and/or practices that are likely to be exhibited by school principals (Table 1).

Previous studies in seven European countries (the United Kingdom, Norway, Germany, Slovenia, Hungary, Italy, and the Netherlands; Brauckmann & Pashiardis, 2011) as well as in Cyprus (Pashiardis, 2014) provided evidence in support to the construct validity of the Pashiardis–Brauckmann Holistic Leadership Framework. Moreover, multiple logistic regressions showed that all of the five leadership styles of the framework predicted the odds of a teacher working in a high- or low-performing school. School performance was represented through an aggregate measure of PISA (Program for International Student Assessment) student achievement in traditional subjects.

This study attempts to expand the investigation of leadership effects to the nonconventional civic education outcomes. A strong impetus to measuring citizenship outcomes is linked to international studies such as the CIVED and the ICCS (Schulz et al., 2010; Torney-Purta et al., 2001). These study findings indicated that the strongest positive predictor of civic knowledge (beyond the student level) is the development of an open classroom climate

(Schulz et al., 2010; Torney-Purta, 2002). With regard to the role of leadership, we only have some qualitative evidence relating to informal aspects of active student citizenship (Pashiardis et al., 2009; Scheerens, 2009, 2011). These findings stress the importance of establishing a culture of democracy and participatory governance structures at school.

Beyond direct effects on student civic learning, this study also seeks to investigate whether an indirect effects model can be validated through key mediating variables at the school and classroom levels. The mediating variables that were chosen to be part of the framework (i.e., School Academic Optimism and Instructional Quality) were previously found to have a strong effect on student achievement mainly due to their strong academic focus (Creemers & Kyriakides, 2008; McGuigan & Hoy, 2006). The combination of both school and classroom variables as mediators between leadership and student outcomes enriches previous frameworks that were mostly concerned only with a single level of intervening variables.

Most important, educational effectiveness research highlights the critical role of teachers at the classroom level (Creemers & Kyriakides, 2008; Reynolds et al., 2014). Although school leaders are responsible for securing the conditions that are necessary for effective teaching, it is the quality of the interactions in the classroom that determines students' progress. The current study uses the dynamic model of educational effectiveness to operationalize instructional quality (Creemers & Kyriakides, 2008, 2011). The classroom-level factors of the dynamic model emanate from teacher effectiveness research (Table 2). Unlike many models used in the past, each effectiveness factor can be defined and measured using a number of dimensions (Table 3). This addition permits the collection of more information on how the factors work and address criticisms of process-product models in relation to weaknesses in describing the complexity of effective teaching and explaining variation in student achievement (Kyriakides & Creemers, 2009).

Contemporary research also shows that several school properties are important in accounting for student achievement. Among these characteristics we can discern the faculty's collective efficacy, faculty trust in student and parents, and the school's academic emphasis (Hoy, 2012). Hoy (2012) suggests that these characteristics are three dimensions of a latent construct called Academic Optimism. As a whole, Academic Optimism represents a schoolwide belief that students will succeed academically. Although a number of studies examined the relationship between the dimensions of academic optimism and student achievement (Bevel & Mitchell, 2012; McGuigan & Hoy, 2006; Smith & Hoy, 2007), there is scant evidence of how academic optimism might mediate the effect of leadership on student achievement. Specifically, one study examined the influence of enabling school structures

Table 2. Effectiveness Factors at the Classroom Level as Defined in the Dynamic Model of Educational Effectiveness.

Effectiveness Factors at the Classroom Level	Definition
Orientation	Orientation refers to a teacher's behavior of explicating the reason for which an activity, a lesson, or a unit takes place. It also refers to the ability of instigating students to recognize the purpose and utility of the learning activities that are conducted.
Structuring	Structuring refers to a teacher's competence of illustrating the connections that exist within the same lesson, between lessons, within a thematic unit, or among different units.
Questioning techniques	This factor refers to those techniques that teachers use to prompt students to answer to a query.
Teaching modelling	Teaching modelling concerns the way a teacher assists students to develop skills that will render them capable of regulating learning on their own.
Application	Teachers provide opportunities for practical application and mastery experience.
Classroom as a learning environment	The model refers to the teacher's contribution in creating a learning environment in relation to five individual elements: teacher–student interaction, student–student interaction, students' treatment by the teacher, competition between students, and classroom disorder.
Management of time	Opportunity to learn and time on task are considered important aspects of teachers' management of time.
Assessment	The specific factor involves those classroom activities that enable teachers to judge progress toward learning goals.

on the academic optimism of secondary schools (McGuigan & Hoy, 2006). The findings showed that principals who developed enabling school structures had cultures of academic optimism embedded in their school. Overall, it was found that enabling structures enhanced academic optimism, which in turn raised levels of achievement even accounting for SES.

Methodology

Sampling

Multistage sampling was used to select a three-stage sample that would participate in the data collection phase. According to this method of sampling, a

Table 3. Measurement Dimensions as Defined in the Dynamic Model of Educational Effectiveness.

Measurement Dimension	Definition
Frequency	Frequency refers to how often a task associated with a factor is present in the classroom.
Focus	The purpose for which an activity takes place and the specificity of the activities that can range from specific to general.
Stage	The stage at which activities take place.
Quality	The dimension of quality refers to the properties of the specific factor itself.
Differentiation	Differentiation refers to the extent to which activities associated with a specific factor are implemented in the same way for all the subjects involved with it.

number of schools are initially selected, then specific classrooms are chosen within each selected school, and students are finally chosen within each selected classroom (Creemers & Kyriakides, 2008). Overall, a multistage sample of 20 middle schools, 114 Year 3 classes, and 1,596 Year 3 students (aged 14–15 years old) participated in the current study. The sample included 12 urban and 8 rural schools across Cyprus. The average number of teachers and students per school was 58 and 416, respectively. This study, however, did not aim to secure a sample that could be generalizable to the population but rather a sample that would enable the identification of effectiveness factors at the student, classroom, and school levels.

Data Collection Instruments

The following section presents a description of the instruments that were used in this study along with existing evidence relating to their validity. Specifically, four such instruments were used concerning School Leadership, Student Citizenship Outcomes, School Academic Optimism and Instructional Quality.

School leadership questionnaire. School Leadership was measured using an adaptation of the instrument developed within the context of the LISA (Leadership Improvement on Student Achievement) project (Pashiardis, 2014). The construct of Leadership was measured through 47 items representing all five leadership styles of the Pashiardis–Brauckmann Holistic Leadership Framework: the Instructional, Participative, Personnel Development, Entrepreneurial, and Structuring Styles. Responses were scored on a Likert-type

scale from 1 to 5, in such a way that a higher score always represented a higher degree of agreement with a statement. The School Leadership Questionnaire was completed by 455 teachers across the whole sample of the 20 middle schools. Confirmatory factor analysis (CFA) through structural equation modelling confirmed the hypothesized factor structure of the Leadership Radius Framework, indicating the best fit among a number of alternative models. The findings showed that although the scaled chi-square was statistically significant ($\chi^2 = 2,230$, degrees of freedom [df] = 996, $p < .001$), and the χ^2/df ratio was over 2, the root mean square error of approximation (RMSEA; 0.052), and comparative fit index (CFI; 0.945) met the criteria for acceptable level of fit.

Student citizenship outcomes test. In the context of Cyprus lower secondary schools, Citizenship Education is taught as a separate and compulsory subject once a week (45 minutes) for one semester. Citizenship education teachers are not required to hold formal qualifications in the subject but they customarily specialize in subjects such as literature and history. Citizenship education learning is not tested through final examinations, and generally, there is no external assessment mechanism in place. Recently, the subject has undergone major reform, and it is expected to be taught through a cross-curricular approach.

Student citizenship outcomes were measured through a criterion-reference test, which had been specifically constructed for the purposes of this study. The items included in the test were aligned to the curriculum that was operative in Cyprus middle schools until the school year 2014-2015. Overall, the test consisted of 26 items that measured cognitive achievement across three content domains: (1) fundamental civic concepts and principles, (2) the individual as citizen of the country, and (3) the individual as citizen of the world.

The test was completed by a total number of 1,596 students. The dichotomous Rasch model was used to analyze student responses to the Cognitive Outcomes pre- and posttest. The analyses indicated that the data largely satisfy the Rasch model for unidimensionality. The items seemed to be well targeted across the whole range of the person abilities, whereas the overall and individual fit indices fell within accepted range of values. However, four items were removed from the test since they were found to distort the measurement system.

The test also consisted of a second part, which was intended to collect student background information. This part composed 13 questions about student gender, immigrant status (i.e., student's place of birth, mother's place of birth, father's place of birth), socioeconomic status (i.e., mother's educational background, father's educational background, mother's occupational background, father's occupational background, number of books at home),

student council participation, as well as aspects of the students' home environment (i.e., buying newspaper at home, watching TV, going out at night).

Instructional quality questionnaire. Instructional Quality was measured using a revised version of the student questionnaire developed by Creemers and Kyriakides (2008). This high-inference instrument covers the five dimensions (frequency, stage, focus, quality, differentiation) of seven effectiveness factors (structuring, orientation, questioning, application, management of time, classroom as a learning environment, assessment) of the dynamic model at the classroom level. Items concerning Teaching-Modelling were not retained since the content of the subject of Citizenship Education—and especially within the short time during which it is taught—does not offer any opportunities for teaching specific strategies to students. Overall, the questionnaire consisted of 38 items regarding the instructional behavior of their civic education teachers. For most items, students were asked to indicate how often a specific behavior is observed in their classroom on a scale of 1 to 5 where 5 represented the option “almost always.” For two of the items measuring “Orientation,” students were asked to choose among five options to indicate how often a specific behavior is observed in their classroom. These options were used to create an ordinal scale where Option A indicated that a specific behavior occurred “at no lesson” and Option E “at every lesson.” The Instructional Quality Questionnaire was completed by 2,151 students across the whole sample of the 20 middle schools.

CFA through structural equation modelling was used to determine the best fitting model. According to this model, the 38 instructional quality variables could be explained by 10 first-order factors (i.e., Orientation, Structuring, Application, Management of Time, Questioning, Classroom as a Learning Environment—Dealing with Cooperation, Classroom as a Learning Environment—Dealing with Misbehavior [positive aspects], Classroom as a Learning Environment—Dealing with Misbehavior [negative aspects],¹ Classroom as a Learning Environment—Teacher–Student Relations, and Assessment). Only eight first-order factors loaded on the second-order factor of instructional quality. “Dealing with Misbehavior—Negative Aspects” and “Management of Time” were specified as first-order factors that did not load on “Instructional Quality.” These factors were set to correlate with each other and with “Instructional Quality.” The findings of the CFA showed that although the scaled chi-square was statistically significant ($\chi^2 = 2,485$, $df = 624$, $p < .001$) and the χ^2/df ratio was much higher than 2, the RMSEA (0.037) and CFI (0.931) met the criteria for acceptable level of fit.

School academic optimism questionnaire. School Academic Optimism was measured using an adaptation of the instrument developed by Hoy and colleagues (Hoy, Tarter, & Hoy, 2006; McGuigan & Hoy, 2006; Smith & Hoy, 2007; Wu,

Hoy & Tarter, 2013). Overall, the questionnaire consisted of 20 items relating to the collective beliefs of teachers about student learning. Teachers were asked to indicate the degree of agreement with the statements provided on a Likert-type scale of 1 to 5 where 5 represented a higher degree of agreement. The questionnaire items represent the three dimensions of academic optimism: Collective Teacher Efficacy, Trust in Students and Parents, and Academic Emphasis. The School Academic Optimism Questionnaire was completed by 455 teachers across the whole sample of the 20 middle schools.

CFA through structural equation modelling showed that the best fitting model was a simpler, one-factor model. The model hypothesized that all observed variables could be explained by a single factor representing School Academic Optimism. Although the scaled chi-square was statistically significant ($\chi^2 = 310$, $df = 144$, $p < .001$) and the χ^2/df ratio was over 2, the RMSEA (0.050) and CFI (0.966) fell within accepted levels of model fit.

Data Collection Procedure

The data collection of the main study was completed in three phases. In the first phase, the main aim was to collect data on Student Citizenship Outcomes by administering the constructed test to the selected sample of students. Data relating to Student Background were also collected. In Phase 2, data were collected with respect to the other three main variables that this study was intended to measure, that is, Instructional Quality, School Leadership, and School Academic Optimism. At this stage, contextual school-level data were also collected during a short meeting with the principal. In Phase 3, citizenship education tests were readministered to the initial sample of students.

Data Analysis

Inferential statistical techniques were used to explore the relationships among the study variables. First, the analysis of the data involved the development and assessment of a variety of different models using multilevel modelling techniques (Goldstein, 2010). This choice has been based on the acknowledgment of the hierarchical structure of the data observations included in the specific study. Beyond multilevel analysis, multiple linear regression (Field, 2013) was used to identify the relationship between school-level variables. Specifically, the main purpose was to identify the relationship between a set of explanatory variables (i.e., School Leadership and Contextual School-Level Variables) and the dependent variable of School Academic Optimism. The specific analysis is carried out at a single level, and therefore, it was deemed to be appropriate to use in this case.

Table 4. Comparison of Empty Models.

	Empty Model 1 (Student–School)	Empty Model 2 (Student–Classroom)	Empty Model 3 (Student– Classroom–School)
χ^2	4775.486	4768.968	4758.584
Reduction		6.518	10.384
df			1
p		.05	.001

Findings

Direct Effects on Student Citizenship Outcomes

The study findings showed that students' both pretest (−0.76) and posttest (−0.33) outcomes were relatively low. This is evident from the negative mean scores of the Rasch estimates, which indicate that the specific test was relatively difficult for the sample of students who participated in the study. Moreover, the gains in student achievement were estimated to be only 0.43, which is a relatively small increase in student achievement.

Multilevel modeling was used to identify the effects of the independent variables (including School Leadership) on Citizenship Cognitive Outcomes controlling for prior achievement. The first step was to identify which levels had to be taken into account to reflect the hierarchical structure of the data. Empty models with all combinations of the levels of analysis were specified and the likelihood statistics of each model were compared (Table 4). Initially, it was found that the likelihood statistics lent support to an empty model consisting of student, classroom, and school levels. However, the variance component at the school level was not statistically significant. As a result, the two-level empty model consisting of student and classroom levels represented the best solution. Since School Leadership constitutes a school-level variable, we ruled out the possibility of a direct effect on the citizenship outcomes. Nevertheless, there was a need to complete the multilevel analysis in our effort to identify potential mediating variables in further analyses.

Table 5 presents the parameter estimates and standard errors derived from the multilevel analysis of student Cognitive Outcomes in Citizenship Education. The empty model (or Model 0) presents the variance at the student and classroom level without any explanatory variables. The variance at each level reached statistical significance ($p < .05$), revealing that MLwiN could be used to identify the explanatory variables that are associated with student scores. We can observe that approximately 9% of the variance in

Table 5. Parameter Estimates and (Standard Errors) for the Analyses of Citizenship Cognitive Outcomes.

Factors	Citizenship Cognitive Outcomes		
	Model 0	Model 1	Model 2
Fixed part (intercept)	-0.447 (0.042)	-0.288 (0.038)	-0.289 (0.037)
Student level			
Prior measure of cognitive outcomes		0.358 (0.024)	0.358 (0.024)
Gender (girls = 0, boys = 1)		-0.136 (0.052)	-0.139 (0.052)
Place of birth (0 = Cyprus, 1 = abroad)		NSS	NSS
Father's place of birth (0 = Cyprus, 1 = abroad)		NSS	NSS
Mother's place of birth (0 = Cyprus, 1 = abroad)		-0.199 (0.077)	-0.194 (0.077)
Buying newspaper at home		0.044 (0.013)	0.044 (0.013)
Number of books at home		0.045 (0.021)	0.045 (0.021)
Going out at night		-0.154 (0.032)	-0.151 (0.032)
Watching TV		NSS	NSS
Student council participation		0.111 (0.054)	0.112 (0.053)
Mother's educational background		0.054 (0.027)	0.057 (0.027)
Father's educational background		0.092 (0.025)	0.092 (0.025)
Mother's occupational background		NSS	NSS
Father's occupational background		NSS	NSS
Classroom level			
Average prior achievement			NSS
Percentage of boys			NSS
Average number of books			NSS
Average mothers' educational background			NSS
Average fathers' educational background			NSS
Average mothers' occupational background			NSS
Average fathers' occupational background			NSS

(continued)

Table 5. (continued)

Factors	Citizenship Cognitive Outcomes		
	Model 0	Model 1	Model 2
Orientation			NSS
Structuring			NSS
Application			NSS
Management of time			NSS
Questioning			NSS
Dealing with cooperation			NSS
Dealing with misbehavior (positive aspects)			0.461 (0.185)
Dealing with misbehavior (negative aspects)			NSS
Teacher–student relations			NSS
Assessment			NSS
Variance components			
Classroom	9.1%	8.4%	6.3%
Student	90.9%	63.8%	63.8%
Explained		27.8%	29.9%
Significance test			
χ^2	4768.968	3456.173	3450.138
Reduction		1312.795	6.035
<i>df</i>		9	1
<i>p</i>		.001	.05

Note. NSS = no statistically significant effect.

student achievement is at the classroom level, whereas around 91% is at the individual level.

In the next step of the analysis, Model 1 was specified by adding all student-level variables to the empty model. The likelihood statistic (χ^2) shows a significant change between the empty model and Model 1 ($p < .001$). In Model 1, 27.8% of the variance in student achievement was explained. We can also observe that the prior measure of student cognitive outcomes had the highest statistically significant effect on the final measure of student outcomes.

A number of other contextual variables at the student level were also found to have a statistically significant effect on student outcomes. First, it was found that girls tend to have higher achievement than boys. Then, students whose mother was born in Cyprus scored higher than students whose

mother was born abroad. On the other hand, the individual student's place of birth and their father's place of birth did not have any statistically significant effect. SES indicators, apart from mother's and father's occupational background, were also found to have a statistically significant effect on student outcomes. Specifically, the higher the level of education of either the mother or father the higher the scores of students. Moreover, "Number of books at home" as well as "Buying newspaper at home" were positively associated with student achievement. "Participating in a student council" was found to be a positive indicator of student achievement, whereas "Going out at night" seemed to be negatively associated with student scores.

In Model 2, contextual and instructional variables at the classroom level were added. The likelihood statistic (χ^2) shows a significant change between the Model 1 and Model 2 ($p < .05$). Overall, Model 2 explains 29.9% of the total variance of student achievement. According to Model 2, only one classroom-level factor had a statistically significant effect on student achievement, that is, Dealing with Misbehavior (Positive Aspects). This finding shows that in classrooms where teachers manage to deal with the positive aspects of misbehavior, students tend to have higher scores in the cognitive domain of Citizenship Education.

School Leadership Indirect Effects on Student Citizenship Outcomes

Indirect effects of School Leadership on Student Citizenship Outcomes can be identified through the use of multilevel structural equation modelling. It was assumed that any indirect effects would occur through the main variable of "Dealing with Misbehavior (Positive Aspects)," which was found to have a direct effect on student outcomes. Therefore, prior to the specification of a structural equation model, a preliminary multilevel analysis was conducted in order to identify the variables that had a direct effect on "Dealing with Misbehavior (Positive Aspects)."

A two-level empty model was specified consisting of classroom and school levels. The variance at each level reached statistical significance revealing that MLwiN could be used to identify the explanatory variables associated with the dependent variable of "Dealing with Misbehavior (Positive Aspects)." However, by adding variables at the classroom and then at the school level, the likelihood statistic (χ^2) increased rather than being reduced toward the value of zero. Thus, it was concluded that no statistically significant results could be identified. This finding did not enable any further attempts to search for indirect effects through the use of structural equation modelling techniques.

School Leadership Effects on Instructional Quality Variables and School Academic Optimism

Despite the fact that no indirect effects of School Leadership were found through the intermediate variable of “Dealing with Misbehavior (Positive Aspects),” a decision was made to inquire into the likely effects of School Leadership on the rest of the Instructional Quality variables as well as School Academic Optimism. The specific decision was made to acquire a comprehensive picture of the span of leadership effects partly addressing the third research question of this study.

First, a number of two-level models (consisting of classroom and school levels) were specified to identify leadership effects on the Instructional Quality variables. Specifically, all first-order classroom factors as well as the second-order factor of Instructional Quality were entered as the dependent variable in separate multilevel models. Further variables were added at the classroom and school level yet no statistically significant effects of School Leadership or School Academic Optimism were found.

Beyond Instructional Quality variables, a decision was made to test for School Leadership effects on School Academic Optimism. In this case, School Academic Optimism was the dependent variable, whereas School Leadership formed the main independent variable. Further leadership and school contextual variables were also added as independent variables: Gender, Educational Background in Leadership, Experience as a Principal, School Location, and School Size. Stepwise multiple regression analysis was used to test for the relationships between the aforementioned independent variables and School Academic Optimism. A single-level regression analysis was used in this case since all variables are located at the school level.

The regression analysis produced a number of statistically significant regression models. The best fitting model explained 21.7% of the variance in School Academic Optimism. The parameters of the regression model are presented in Table 6. According to the findings, most of the independent variables have made a statistically significant contribution to predicting the outcome ($p < .01$). The standardized beta values indicate the importance of each individual predictor. School Leadership was found to be the most important predictor with a beta value of 0.439. This means that for an increase of one standard deviation in School Leadership the outcome variable of Academic Optimism increases by 0.439 of a standard deviation.

Further important variables are School Location and Experience as a Principal. First, the beta value for School Location is 0.138. This means that in rural schools, academic optimism is greater by 0.138 of a standard deviation when compared to urban schools. Furthermore, an increase of one

Table 6. Regression Coefficients With School Academic Optimism as the Dependent Variable.

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	SE	β		
Constant	1.167	0.045		26.075	.001
School leadership	0.243	0.013	0.439	18.439	.001
School location (0 = Urban, 1 = Rural)	0.045	0.009	0.138	5.008	.001
Experience as a principal	0.022	0.005	0.108	4.697	.001
Gender (0 = Male, 1 = Female)	0.032	0.008	0.094	4.011	.001
Educational background in school leadership (0 = No qualification, 1 = Postgraduate certificate, 2 = Master's degree, 3 = PhD)	0.020	0.008	0.068	2.423	.016

standard deviation in Principalship Experience is associated with an increase of 0.108 of a standard deviation in School Academic Optimism.

The rest of the contextual variables seem to predict Academic Optimism to a lesser extent. The findings showed a small but statistically significant effect of the principal's gender ($B = 0.094$). Specifically, academic optimism was greater in schools where the principal was female rather than male. Furthermore, the Educational Background in Leadership was found to be a statistically significant predictor. Specifically, the schools with principals that hold higher qualifications in leadership have a greater level of academic optimism. That is, a one standard deviation increase in their educational background in school leadership is associated with a 0.068 of a standard deviation in academic optimism.

Discussion of Findings

Direct Effects on Student Citizenship Outcomes

The findings of the current study showed that the student and classroom levels are the most important in explaining the variance in Citizenship Cognitive Outcomes when searching for direct effects on student achievement. In fact, most of the explained variance was attributed to student-level factors, a finding that is in line with previous educational effectiveness studies (Creemers & Kyriakides, 2008). Moreover, the total variance explained was approximately 30%, which is similar to the findings of secondary analyses of the

CIVED and ICCS data (Isac, Maslowski, & van der Werf, 2011; Isac, Maslowski, Creemers, & van der Werf, 2014).

At the classroom level, it was found that “Dealing with Misbehavior (Positive Aspects)” had a positive and significant effect on student achievement. Specifically, higher scores in student outcomes are observed in classrooms where teachers establish and implement rules for student behavior and are able to end in an effective way any possible disorder. Other studies provide consistent evidence of a positive association between the creation of an orderly classroom climate and student achievement (Creemers & Kyriakides, 2008; Teodorovic, 2011).

The factor of “Dealing with Misbehavior (Positive Aspects)” seems to have been the only one at the classroom level to influence student learning. This finding seems to highlight the low status of the subject of Citizenship Education as well as the importance of establishing an orderly environment for conducting the lessons. It seems that students have low expectations from the subject and probably seek ways to avoid their active engagement through inappropriate behavior. Teachers who manage to deal with this kind of behavior are more likely to drive the attention of students to academic tasks and are therefore the most effective in raising their cognitive outcomes.

School Leadership Effects on Student Citizenship Outcomes

The findings of the study showed no direct or indirect effects of School Leadership on Citizenship Cognitive Outcomes unlike previous leadership effects studies (e.g., Day et al., 2010; Hallinger & Heck, 2011; Kythreotis et al., 2010). These findings should not be mistakenly taken to imply that School Leadership is not important for student learning but they should be interpreted under the light of previous leadership effects research and within the context of the current study limitations. More specifically, a number of factors might explain the inability to identify any leadership effects. We suggest that the most important of these factors relates to the low status of Citizenship Education in Cyprus middle schools. Specifically, there are no formal accountability mechanisms for schools to raise student citizenship outcomes and as a result they shift their attention to subjects that are deemed more critical for judging school performance levels. Although recently there has been a revived interest worldwide in promoting civics at school (Isac et al., 2011, 2014), yet the subject’s position in the curriculum has not been adequately reformed. The current state of the subject seems to pose a constraint on the development of practices that could enhance student citizenship outcomes.

The aforementioned ascertainments clearly relate to fundamental insights of institutional theorists (e.g., Rowan & Miskel, 1999; Scott, 2001). In this

respect, school priorities mirror institutional requirements, rules, and values in an attempt to be rewarded and gain support and legitimacy. It seems that, in this context, school leaders respond to the institutional environment by treating citizenship education as a symbolic act while investing more resources in high-status subjects, which are tested by means of national examinations. Thus, their schools gain both legitimacy and the resources that go with and increase their adaptability and prospects for survival.

Added to that, the great size and complexity of middle schools does not enable any frequent interactions between principals and students. Previous meta-analyses also showed that principals exercise a lower effect in secondary than in primary schools (Scheerens & Bosker, 1997) or even a zero effect (Witziers, Bosker, & Krüger, 2003). These findings suggest that secondary school principals may have less opportunity to (directly or indirectly) affect student achievement than primary school principals. Both the senior management teams and especially the subject coordinators have been formed to effectively respond to the managerial complexity of secondary schools and an expanded set of leadership tasks for the school principal. The leadership role therefore seems to reside with the person whose duties are more closely linked to the designated effectiveness criterion, which in our case is Citizenship Education. Thus, especially in secondary schools, leadership practice should probably be viewed through a distributed perspective (Harris, 2013; Spillane, 2012).

Furthermore, the current study may have not detected any influence of school leadership on student outcomes due to its statistical power. Although the sample size of 20 schools was considered to be adequate for conducting a multilevel study, one may argue that effects can be more effectively manifested through a larger sample of schools. Given that a smaller sample size increases the possibility of a Type II error (Creemers, Kyriakides, & Sammons, 2010), it is likely that the sample of 20 schools included in the study might not have been sufficient to demonstrate any statistically significant effects at the school level. Thus, increasing the power of the study would probably tap more variance and lead to more certainty as to the potential effects at the school level.

With a particular focus on the indirect effects model, it is likely that the conceptual framework adopted has influenced the derived findings. Specifically, the mediating variables selected, that is, Instructional Quality and School Academic Optimism, may have underestimated the role and influence of school leadership. Although previous studies (Creemers & Kyriakides, 2008; McGuigan & Hoy, 2006) indicated the value of incorporating these variables in the initial framework, it is likely that school leadership seeps through to Citizenship Outcomes through other pathways. This assumption

also raises the issue of the differential effectiveness of factors across various subjects. Specifically, school and teacher factors can be effective in relation to one subject and ineffective for another. This interpretation is in line with the dynamic model of educational effectiveness, which sustains that we should look at the functioning of effectiveness factors through a dynamic rather than a static, instrumental perspective (Creemers et al., 2010). To date, researchers have not been able to monitor the functioning of effectiveness factors across the full range of the school curriculum. A challenge, therefore, emerges to identify those factors—either at the classroom or school level—that are more strongly associated with Citizenship Outcomes in particular and could act as possible mediators in the study of school leadership effects.

The current study findings do not diminish the role of the school principal but seem to give rise to a serious leadership tension, that is, how a school leader can manage and resolve conflicting educational priorities. Specifically, an educational paradox can be identified in the case of Citizenship Education. On the one hand, curriculum guidelines clearly emphasize the role of schooling in preparing active and democratic citizens in society. On the other, the subject (i.e., Citizenship Education), which primarily seeks to address this purpose of education, is underemphasized. It is taught for a short period of time, it is not examined, and overall there is a tacit assumption that it is a “lower class” subject that should bear no real concern to teachers or students. This assumption emerges mainly from the system level and infiltrates both teacher and student expectations and practices. Therefore, whereas the general purpose of democratic citizenship is considered a priority the main strategy to achieve this purpose seems to be undermined.

Mulford (2012) also identifies such a paradox in relation to the purposes of education. Specifically, he highlights the fact that while there are many educational purposes pronounced as important in policy documents only a limited number are given priority and support. The emphasis is generally placed on the enactment of the private purposes of education to the detriment of the public purposes of forming active and democratic citizens. In fact, in a recent study in Australian primary schools, it was found that while principals considered public purposes as highly important they were not able to translate those into practice in the same degree (Cranston, Mulford, Keating, & Reid, 2010).

The challenge, therefore, for school leaders rests with the successful management of the tension between stated educational priorities and enactment strategies. Toward this direction, they need to act as change agents who challenge the bureaucratic system requirements and develop their own vision for school improvement—a vision that encompasses the wider goals of schooling and focuses on all available enactment strategies. In this way, principals can create the conditions that will enable teachers and students to embrace Citizenship Education.

School Leadership Effects on Instructional Quality and School Academic Optimism

Although no leadership effects on student citizenship outcomes were found, it was deemed a necessity to inquire into the possible leadership effects on other important school and classroom variables so as to identify all potential relationships among the studied variables. In this way, we would be in a position to acquire a more comprehensive understanding of the “puzzle picture” that corresponds to “leadership for civic learning.”

First, all first-order classroom factors as well as the second-order factor of Instructional Quality were entered as the dependent variable in separate multilevel models. However, school leadership was not found to influence any of these variables. Moreover, no claim could be made of an indirect effect through School Academic Optimism since the latter variable was not found to have any effect on Instructional Quality variables either. These findings also suggest that the school focus on improving teaching quality does not really embrace citizenship education.

Second, School Academic Optimism was found to be influenced by School Leadership as well as a number of contextual variables. Specifically, School Leadership had a substantial effect on School Academic Optimism, indicating the critical role of principals in shaping a culture of optimism in relation to student learning. Other studies also found that school leaders are in a position to increase academic optimism through their practices. For example, McGuigan and Hoy's (2006) study showed that academic optimism is greater in schools where principals create enabling structures to facilitate teacher work. Moreover, Mascal, Leithwood, Straus, and Sacks (2008) found that high levels of academic optimism were associated with planned approaches to leadership distribution.

The influence of a number of contextual variables was also examined in the current piece of research. The variables that had a statistically significant effect on School Academic Optimism were School Location, the Principal's Experience in Post, the Principal's Gender, and the Principal's Educational Background in School Leadership. These findings highlight the importance of incorporating contextual variables in leadership effects research.

Conclusion and Further Implications

This study has made an initial attempt to inform the sparse body of knowledge relating to school leadership effects on citizenship education outcomes. Figure 2 presents an overview of the main relationships between the variables of the study. Overall, a number of student background variables and the

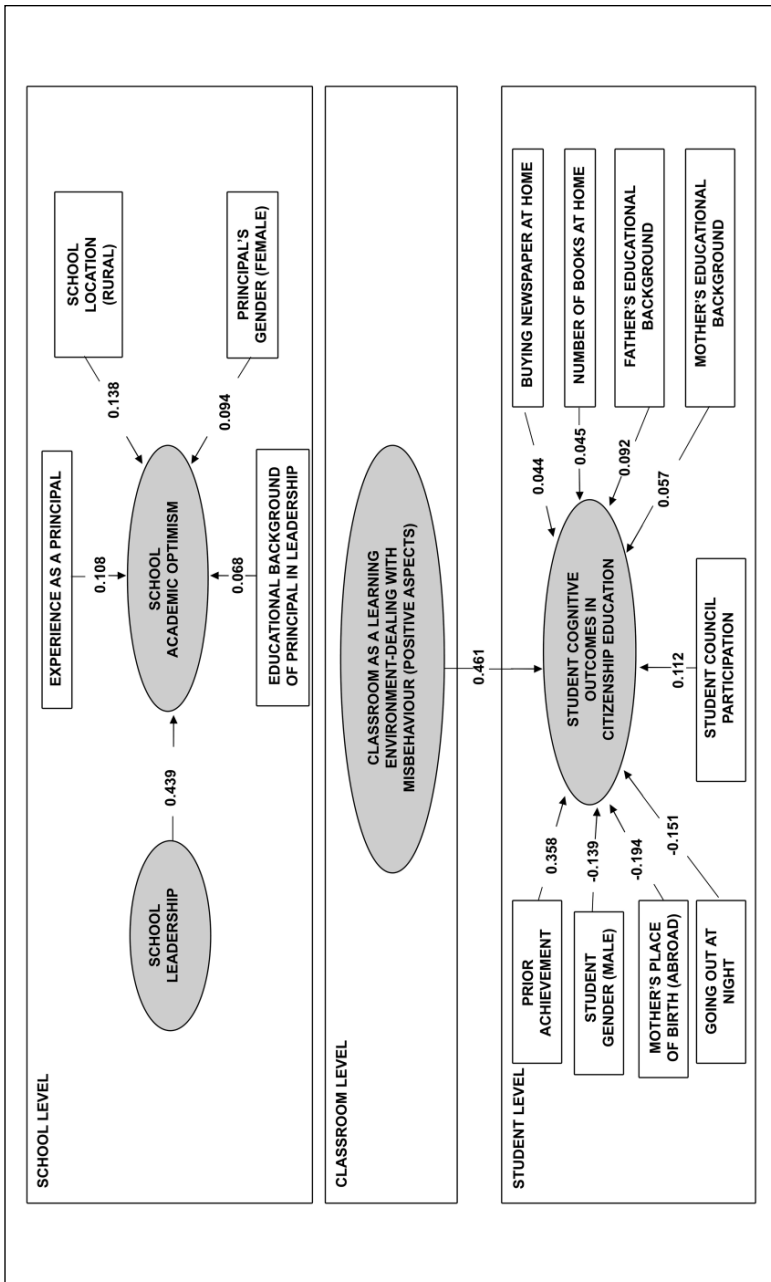


Figure 2. Summary of the relationships between the variables of the study.

classroom-level factor of “Dealing with Misbehavior (Positive Aspects)” appear to have a positive effect on student outcomes. Moreover, School Leadership as well as a number of contextual school and principal level variables seem to have a significant effect on School Academic Optimism. Clearly, there are missing links between School Leadership and Student Citizenship Outcomes. However, this model can provide the basis on which a comprehensive theory of leadership effects on student citizenship can be constructed by taking into account the existing relationships found.

The current study findings also provide a number of implications for improving educational practice and policy. At the classroom level, civic education teachers should seek to apply what research shows to be effective instructional practice. With regard to our piece of research, the aspect of dealing with student misbehavior has been found to be related to improved student achievement. Thus, teachers may focus their instructional practice on improving this specific behavior, whereas principals and subject coordinators should seek to provide their own support and guidance toward this end.

In addition, this piece of research has highlighted the importance of the student context to civic learning. Therefore, principals and civic education teachers should proceed to actions that can advance the sociocultural capital of students. Specifically, they can attempt to influence those aspects of the student background that were found to be associated with their outcomes and which can be altered. For example, buying newspapers at home or the number of books at home constitute some effectiveness factors that schools can intentionally choose to work on for the benefit of students. This can be done either through their interaction with students or through their interaction with parents.

Taking into account the small gains in citizenship outcomes as well as the small explanatory power of classroom and school-level factors, we come to assume that there is further room for upgrading the subject of Citizenship Education in the curriculum. More specifically, we suggest that policy makers should attach a higher degree of accountability to school principals and teachers with regard to civic learning. One of the measures that could be taken toward this direction could be the introduction of end-of-year exams in Citizenship Education. Furthermore, more focused training should be provided to teachers through the provision of programmes that include elements of effective civic education teaching.

Finally, further research can be broadened to incorporate aspects that were not included in the current study. Specifically, indirect effects of School Leadership could be examined through the use of further intermediate variables that are likely to affect civic learning, such as Subject Leadership, or Teacher Attitudes Toward Civic Education. Other studies should also seek to increase statistical power by including more schools and classrooms, while

international comparative studies could also incorporate aspects of leadership behavior in their design.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received financial support from the Cyprus Educational Administration Society and the A.G. Leventis Foundation.

Note

1. The positive and negative aspects of "Dealing with Misbehavior" refer to the respective positively or negatively worded items of the instrument. For example, the item "I know that if I break a class rule I will be punished" falls under the positive aspects of "Dealing with Misbehavior," whereas the item "There are some pupils in the classroom that tease some of their classmates during citizenship education lessons" is related to the negative aspects.

References

- Bevel, R. K., & Mitchell, R. M. (2012). The effects of academic optimism on elementary reading achievement. *Journal of Educational Administration*, 50, 773-787. doi:10.1108/09578231211264685
- Brauckmann, S., & Pashiardis, P. (2011). A validation study of the leadership styles of a holistic leadership theoretical framework. *International Journal of Educational Management*, 25(1), 11-32. doi:10.1108/09513541111100099
- Bruggencate, G. T., Luyten, H., Scheerens, J., & Slegers, P. (2012). Modeling the influence of school leaders on student achievement: How can school leaders make a difference? *Educational Administration Quarterly*, 48, 699-732. doi:10.1177/0013161X11436272
- Cranston, N., Mulford, B., Keating, J., & Reid, A. (2010). Primary school principals and the purposes of education in Australia: Results of a national survey. *Journal of Educational Administration*, 48, 517-539. doi:10.1108/09578231011054743
- Creemers, B. P. M., & Kyriakides, L. (2008). *The dynamics of educational effectiveness: A contribution to policy, practice and theory in contemporary schools*. New York, NY: Routledge.
- Creemers, B. P. M., & Kyriakides, L. (2011). *Improving quality in education: Dynamic approaches to school improvement*. New York, NY: Routledge.
- Creemers, B. P. M., Kyriakides, L., & Sammons, P. (2010). Methodological issues in educational effectiveness research. In B. P. M. Creemers, L. Kyriakides, & P. Sammons (Eds.), *Methodological advances in educational effectiveness research* (pp. 19-36). New York, NY: Routledge.

- Day, C. (2011). Building and sustaining successful principalship in an English school. In L. Moos, O. Johansson, & C. Day (Eds.), *How school principals sustain success over time: International perspectives* (pp. 91-108). Dordrecht, Netherlands: Springer.
- Day, C., Sammons, P., Hopkins, D., Harris, A., Leithwood, K., Gu, Q., & Brown, E. (2010). *10 Strong claims about successful school leadership*. Nottingham, England: National College for Leadership of Schools and Children's Services.
- De Maeyer, S., Rymenans, R., Van Petegem, P., van den Bergh, H., & Rijlaarsdam, G. (2007). Educational leadership and pupil achievement: The choice of a valid conceptual model to test effects in school effectiveness research. *School Effectiveness and School Improvement*, 18, 125-145.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). London, England: Sage.
- Goldstein, H. (2010). *Multilevel statistical models* (4th ed.). London, England: Edward Arnold.
- Hallinger, P., & Heck, R. (1998). Exploring the principals' contribution to school effectiveness: 1980-1995. *School Effectiveness and School Improvement*, 9, 157-191. doi:10.1080/0924345980090203
- Hallinger, P., & Heck, R. (2011). Conceptual and methodological issues in studying school leadership effects as a reciprocal process. *School Effectiveness and School Improvement*, 22, 149-173.
- Harris, A. (2013). *Distributed school leadership: Developing tomorrow's leaders*. New York, NY: Routledge.
- Hoy, W. K. (2012). School characteristics that make a difference for the achievement of all students: A 40-year odyssey. *Journal of Educational Administration*, 50(1), 76-97. doi:10.1108/09578231211196078
- Hoy, W. K., Tarter, C. J., & Woolfolk Hoy, A. W. (2006). Academic optimism of schools: A force for student achievement. *American Educational Research Journal*, 43, 425-446. doi:10.3102/00028312043003425
- Huber, S. G., & Muijs, D. (2010). School leadership effectiveness: The growing insight in the importance of school leadership for the quality and development of schools and their pupils. In S. G. Huber (Ed.), *School leadership-international perspectives* (pp. 57-77). Dordrecht, Netherlands: Springer.
- Isac, M. M., Maslowski, R., & van der Werf, G. (2011). Effective civic education: An educational effectiveness model for explaining students' civic knowledge. *School Effectiveness and School Improvement*, 22, 313-333. doi:10.1080/09243453.2011.571542
- Isac, M. M., Maslowski, R., Creemers, B., & van der Werf, G. (2014). The contribution of schooling to secondary-school students' citizenship outcomes across countries. *School Effectiveness and School Improvement*, 25, 29-63. doi:10.1080/09243453.2012.751035
- Krüger, M. L., Witziers, B., & Slegers, P. (2007). The impact of school leadership on school level factors: Validation of a causal model. *School Effectiveness and School Improvement*, 18, 1-20. doi:10.1080/09243450600797638

- Kyriakides, L., & Creemers, B. P. M. (2009). The effects of teacher factors on different outcomes: Two studies testing the validity of the dynamic model. *Effective Education*, 1(1), 61-85. doi:10.1080/19415530903043680
- Kythreotis, A., Pashiardis, P., & Kyriakides, L. (2010). The influence of school leadership styles and culture on students' achievement in Cyprus primary schools. *Journal of Educational Administration*, 48, 218-240.
- Leithwood, K. (2012). School leadership, evidence-based decision making, and large-scale student assessment. In C. F. Webber & J. L. Lupart (Eds.), *Leading student assessment* (pp. 17-39). Dordrecht, Netherlands: Springer.
- Leithwood, K., Day, C., Sammons, P., Harris, A., & Hopkins, D. (2006). *Successful school leadership: What it is and how it influences pupil learning*. Nottingham, England: Dfes.
- Levacic, R. (2005). Educational leadership as a causal factor: Methodological issues in research on leadership effects. *Educational Management, Administration & Leadership*, 33, 197-210.
- Mascall, B., Leithwood, K., Straus, T., & Sacks, R. (2008). The relationship between distributed leadership and teachers' academic optimism. *Journal of Educational Administration*, 46, 214-228. doi:10.1108/09578230810863271
- McGuigan, L., & Hoy, W. K. (2006). Principal leadership: Creating a culture of academic optimism to improve achievement for all students. *Leadership and Policy in Schools*, 5, 203-229. doi:10.1080/15700760600805816
- Mulford, B. (2012). Tinkering towards Utopia: Trying to make sense of my contribution to the field. *Journal of Educational Administration*, 50, 98-124. doi:10.1108/09578231211196087
- Mulford, B., & Silins, H. (2011). Revised models and conceptualization of successful school principalship for improved student outcomes. *International Journal of Educational Management*, 25, 61-82. doi:10.1108/09513541111100125
- Nettles, S. M., & Herrington, C. (2007). Revisiting the importance of the direct effects of school leadership on student achievement: The implications for school improvement policy. *Peabody Journal of Education*, 82, 724-736.
- Pashiardis, P. (Ed.). (2014). *Modeling school leadership across Europe: In search of new frontiers*. Amsterdam, Netherlands: Springer.
- Pashiardis, P., Georgiou, M., & Georgiou, M. (2009). In J. Scheerens (Ed.), *Informal learning of active citizenship at school: An international comparative study in seven European countries* (pp. 51-74). Amsterdam, Netherlands: Springer.
- Reynolds, D., Sammons, P., De Fraine, B., Van Damme, J., Townsend, T., Teddlie, C., & Stringfield, S. (2014). Educational effectiveness research (EER): A state-of-the-art review. *School Effectiveness and School Improvement*, 25, 197-230. doi:10.1080/09243453.2014.885450
- Rowan, B., & Miskel, C. (1999). Institutional theory and the study of educational organizations. In J. Murphy & K. S. Louis (Eds.), *Handbook of research on educational administration* (pp. 359-383). San Francisco, CA: Jossey-Bass

- Scheerens, J. (2009). Aims and scope of the study. In J. Scheerens (Ed.), *Informal learning of active citizenship at school: An international comparative study in seven European countries* (pp. 1-10). Dordrecht, Netherlands: Springer.
- Scheerens, J. (2011). Indicators on informal learning of active citizenship at school. *Educational Assessment, Evaluation and Accountability*, 23, 201-222.
- Scheerens, J. (2012). Summary and conclusion: Instructional leadership in schools as loosely coupled organizations. In J. Scheerens (Ed.), *School leadership effects revisited: Review and meta-analysis of empirical studies* (pp. 131-151). Dordrecht, Netherlands: Springer.
- Scheerens, J., & Bosker, R. (1997). *The foundations of educational effectiveness*. Oxford, England: Pergamon Press.
- Schulz, W., Ainley, J., Fraillon, J., Kerr, D., & Losito, B. (2010). *ICCS 2009 international report: Civic knowledge, attitudes and engagement among lower-secondary school student in 38 countries*. Dordrecht, Netherlands: International Association for the Evaluation of Educational Achievement.
- Scott, W. R. (2001). *Institutions and organizations* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.
- Sebastian, J., & Allensworth, E. (2012). The influence of principal leadership on classroom instruction and student learning: A study of mediated pathways to learning. *Educational Administration Quarterly*, 48, 626-663. doi:10.1177/0013161X11436273
- Shin, S. H., & Slater, C. L. (2010). Principal leadership and mathematics achievement: An international comparative study. *School Leadership and Management*, 30, 317-334.
- Smith, P. A., & Hoy, W. K. (2007). Academic optimism and student achievement in urban elementary schools. *Journal of Educational Administration*, 45, 556-568. doi:10.1108/09578230710778196
- Spillane, J. P. (2012). *Distributed leadership*. San Francisco, CA: Jossey Bass.
- Teodorovic, J. (2011). Classroom and school factors related to student achievement: What works for students? *School Effectiveness and School Improvement*, 22, 215-236. doi:10.1080/09243453.2011.575650
- Torney-Purta, J. (2002). Patterns in the civic knowledge, engagement and attitudes of European adolescents: The IEA civic education study. *European Journal of Education*, 37, 129-141. doi:10.1111/1467-3435.00098
- Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty-eight countries: Civic knowledge and engagement at age fourteen*. Amsterdam, Netherlands: IEA.
- Witziers, B., Bosker, R. J., & Krüger, M. L. (2003). Educational leadership and student achievement: The elusive search for an association. *Educational Administration Quarterly*, 39, 398-425. doi:10.1177/0013161X03253411
- Wu, J. H., Hoy, W. H., & Tarter, C. J. (2013). Enabling school structure, collective responsibility, and a culture of academic optimism: Toward a robust model of school performance in Taiwan. *Journal of Educational Administration*, 51, 176-193. doi:10.1108/09578231311304698

Author Biographies

Vassos Savvides is a training officer at the Cyprus Academy of Public Administration. He has also worked as a primary school teacher and a research associate at the Open University of Cyprus. He received a PhD in educational leadership and policy from the Open University of Cyprus. His research interests include school leadership, educational effectiveness, and citizenship education.

Petros Pashiardis is a professor of educational leadership at the Open University of Cyprus. He studied at the University of Texas at Austin as a Fulbright Scholar. For the period 2004 to 2008, he was the president of the Commonwealth Council for Educational Administration and Management. During his travels, he has collaborated extensively with civil society organizations from commonwealth countries toward the attainment of millennium development goals, as they relate to improving equality of opportunity for education for all. His research interests are in leadership effects, school improvement and leadership development, as well as teacher and school principal evaluation.