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Influence of School Leadership Style on Effective Teaching and Teacher-Student Interaction

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Abstract. The purpose of the study is to investigate the influence of school leadership on effective teaching and teacher-student interaction. A quasi-experimental research design, and a structured questionnaire were used in the study. A random cluster sample of teachers from lower secondary education were taken. The study demonstrated that a positive correlation exists between school leadership styles and effective teaching as well as teacher-students interaction. It can be concluded that the school leadership style impacts effective teaching and teacher-student interaction. It is one of a very small number studies in school leadership to provide such results.

Keywords: *school leadership style, effective teaching, teacher-student interaction.*

Introduction and literature review

School leadership seemed to be one of the most important variables that impact teaching and learning. Leadership involves equity, inclusion, and diversity, in stimulating the changes needed (Bush & Middlewood, 2005), and involves also a social influence by one person or group over other people or groups to structure the activities and relationships in a group or organization (Yukl 2002: 3; Bush, 1998, 2003) links leadership to values or purpose, and Beare et al. (1992) draws on the work of Bennis and Nanus (1985) articulated some emerging generalizations: a vision, communication, meaning, institutionalizing. Cetin et al. (2016) indicate eight leadership responsibilities: culture, ideals, and beliefs,

communication, visibility, input, relationships, situational awareness, an affirmation that are necessary to form the purposeful community.

The rapid change around the world has led to increased accountability pressures on school principals, and good leaders are informed by and communicate clear sets of personal and educational values, as well as schools classified as successful, possess a competent and sound school leadership (Hallinger, 2001: 61; Day et al., 2001; Huber, 2004a: 1–2). The beginning principals were not prepared for the pace of the job, and those who appear to have natural' leadership qualities acquired them through a learning process (Sackney & Walker's, 2006: 343; Avolio, 2005: 2). There is a movement away from the individual towards the emergent and collective leadership, and interactive learning, such as networking, a stronger focus on school-wide leadership development appears to be timely (Tusting & Barton, 2006; Bush et al., 2007b). Lyons (2016) indicated the need for preservice education to prepare principals for leadership, and Ogurlu (2014) revealed that the study program had positive effects on the leadership skills, meanwhile, Guthrie (2016) is focused on processes that integrate leadership learning across institutions. The intentional and technological model, as well as the interaction, are the effective ways to teach leadership (Werner et. al., 2016; Crow, 2006: 315; Klotz & Whiting, 1998). The purpose of the study is to investigate the influence of school leadership on effective teaching and teacher-student interaction in the classroom.

Theoretical framework

There is no single all-embracing theory of educational leadership. In part, this reflects the astonishing diversity of educational institutions. It relates also to the varied nature of the problems encountered in schools and colleges. Above all, it reflects the multifaceted nature of theory in educational leadership and management. As a result, several perspectives may be valid simultaneously (Bush, 2003). Bush (2003) identified nine models of educational leadership: managerial, participative, transformational, interpersonal, transactional, postmodern, contingency, moral, and instructional. In the study, the four following educational leadership models were investigated.

Conceptual framework

The framework for the study was developed from an extensive review of existing evidence about leadership in schools. The review began with a search for relevant empirical research through Sage, EBSCO and ERIC using the keywords "school leadership," "effective teaching," and "teacher-students interaction". Figure 1, summarizing the framework resulting from our review, proposes a set of relationships among the three constructs. School leadership as an independent variable influences the two dependent variables: effective teaching, and teacher-student interaction.

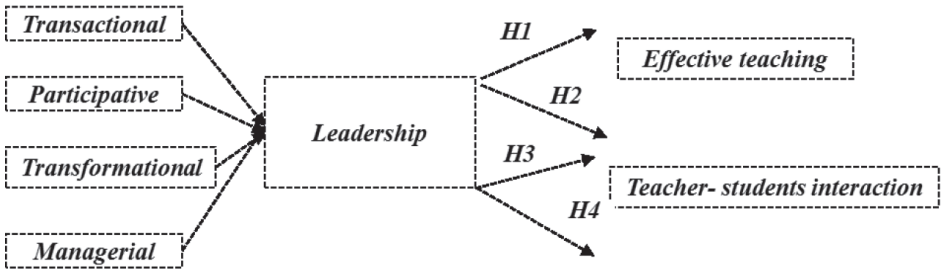

Figure 1. Conceptual framework

Effective leadership is meant to be fundamental to effective teaching and academic progress of students. There is a general approach in our schools of the main elements of leadership about which requirements are most likely to produce the most favorable outcomes in teaching and learning. There are of course alternative approaches to school leadership that compete and fulfill each-others to contribute in the quality of school, and especially in students' outcome.

Transactional leadership

Bush (2003) links transactional leadership to the political model, and Miller & Miller (2001) contrast it with transformational leadership: Transactional leadership is leadership in which relationships with teachers are based upon an exchange for some valued resource. Transformational leadership is more potent and complex and occurs when one or more teachers engage with others in such a way that administrators and teachers raise one another to higher levels of commitment and dedication, motivation and morality. To the teacher, interaction between administrators and teachers is usually episodic, short-lived and limited to the exchange transaction. Transformational leadership is more potent and complex and occurs when one or more teachers engage with others in such a way that administrators and teachers raise one another to higher levels of commitment and dedication, motivation and morality. Through the transforming process, the motives of the leader and follower merge (p. 182). Miller and Miller's (2001) definition refers to transactional leadership as an exchange process. Exchange is an established political strategy for members of organizations. Heads and principals possess authority arising from their positions as the formal leaders of their institutions. They also hold power in the form of key rewards such as promotion and references. However, the head requires the co-operation of staff to secure the effective management of the school. An exchange may secure benefits for both parties to the arrangement. The major limitation of such a process is that it does not engage staff beyond the immediate gains arising from the transaction. Therefore, transactional leadership does not produce long-term commitment to the values and vision being promoted by school leaders.

Participative leadership

Sergiovanni (1984: 13) showed that participative leadership will succeed in bonding staff together and in easing the pressures on school principals, and Leithwood et al. (1999: 12) indicate that participative leadership assumes that the decision-making ought to be the central focus of the group. This model is underpinned by three assumptions: participation will increase school effectiveness, participation is justified by democratic principles, and in the context of site-based management leadership is potentially available to any legitimate stakeholder (Leithwood et al., 1999: 12; Savery et al., 1992) conclude that people are more likely to accept and implement decisions in which they have participated, particularly where these decisions relate directly to the individual's own job (p. 24). Savery et al. (1992) demonstrate that deputy principals wish to participate in school decision-making although their desire to do so varied across different types of decision. Sergiovanni (1984: 13) points to the importance of a participative approach. This will succeed in 'bonding' staff together and in easing the pressures on school principals. "The burdens of leadership will be less if leadership functions and roles are shared and if the concept of *leadership density* were to emerge as a viable replacement for principal leadership" (Sergiovanni, 1984: 13).

Transformational leadership

Bush (2003) links three leadership models to his 'collegial' management model.

The first of these is 'transformational leadership'. This form of leadership assumes that the central focus of leadership ought to be the commitments and capacities of organizational members. Higher levels of personal commitment to organizational goals and greater capacities for accomplishing those goals are assumed to result in extra effort and greater productivity (Leithwood et al., 1999: 9). Bush (2003) points that transformational leadership assumes that the central focus of leadership ought to be the commitments and capacities of organizational members, and Leithwood et al. (1999) indicate that higher levels of personal commitment and greater capacities are assumed to result in greater productivity. Leithwood (1994) conceptualizes transformational leadership along dimensions: vision, goals, intellectual stimulation, individualized support, best practices, high performance, productive culture, participation in school decisions, and Caldwell and Spinks (1992: 49-50) argue that transformational leadership is essential for autonomous schools. "Transformational leaders succeed in gaining the commitment of followers to such a degree that … higher levels of accomplishment become virtually a moral imperative. In our view a powerful capacity for transformational leadership is required for the successful transition to a system of self-managing schools" (Caldwell and Spinks, 1992: 49–50). Leithwood's (1994) research suggests that there is some empirical support for the essentially normative transformational leadership model. He reports on seven quantitative studies and concludes that "transformational leadership practices, considered as a composite construct, had significant direct and indirect effects on progress

with school-restructuring initiatives and teacher perceived student outcomes" (p. 506). The transformational model is comprehensive in that it provides a normative approach to school leadership, which focuses primarily on the process by which leaders seek to influence school outcomes rather than on the nature or direction of those outcomes. However, it may also be criticized as being a vehicle for control over teachers and more likely to be accepted by the leader than the led (Chirichello 1999). Allix (2000) goes further and alleges that transformational leadership has the potential to become 'despotic' because of its strong, heroic and charismatic features. He believes that the leader's power ought to raise *moral qualms* and serious doubts about its appropriateness for democratic organizations. The contemporary policy climate within which schools have to operate also raises questions about the validity of the transformational model, despite its popularity in the literature. There is a more centralized, or directed, and more controlled educational system that has dramatically reduced the possibility of realizing a genuinely transformational education and leadership (Bottery, 2001: 215). Transformational leadership is consistent with the collegial model in that it assumes that leaders and staff have shared values and common interests. When it works well, it has the potential to engage all stakeholders in the achievement of educational objectives.

Managerial leadership

Managerial leadership assumes that the focus of leaders ought to be on functions, tasks and behaviors (Leithwood et al., 1999: 14; Bush, 1986, 1995, 2003), and that if these functions are carried out competently the work of others in the organization will be facilitated. Dressler (2001: 175) shows the significance of managerial leadership: "Traditionally, the principal's role has been clearly focused on management responsibilities", and Caldwell (1992: 16-17) argues that leaders must develop and implement a cyclical process involving goal setting, needs identification, priority setting, planning, budgeting, implementing, evaluating. Most approaches to managerial leadership also assume that the behavior of organizational members is largely rational. Authority and influence are allocated to formal positions in proportion to the status of those positions in the organizational hierarchy (Leithwood et al., 1999: 14). Formal models assume that organizations are hierarchical systems in which managers use rational means to pursue agreed goals. Heads possess authority legitimized by their formal positions within the organization and are accountable to sponsoring bodies for the activities of their institutions (Bush, 2003: 37). It is significant to note that this type of leadership does not include the concept of vision, which is central to most leadership models. Managerial leadership is focused on managing existing activities successfully rather than visioning a better future for the school. This approach is very suitable for school leaders working in centralized systems as it prioritizes the efficient implementation of external imperatives, notably those prescribed by higher levels in the hierarchy (Bush, 2008: 12). Managerial leadership has certain advantages, notably for bureaucratic systems, but there are difficulties in applying

it too enthusiastically to schools and colleges because of the professional role of teachers. If teachers do not "own" innovations but are simply required to implement externally imposed changes, they are likely to do so without enthusiasm, leading to possible failure (Bush, 2003: 46).

Effective teaching

There are greater differences between how effective teaching is defined by those taking student surveys and those interpreting the results (Layne, 2012), meanwhile, Gebre et al. (2015) define as comprising three conceptions: transmitting knowledge, engaging students, and developing learning independence. Ineffective teaching students can easily identify and serve as a platform to engage, and a high consistency between the teachers' conception of effective teaching and their corresponding teaching practices was observed (Hill, 2014; Tavakoli & Baniasad-Azad, 2017). The effective teaching skills are related to instructional strategies, classroom management, and curriculum design, but teachers embraced teacher-centered practices, rather than a student-centered approach (Welsh & Schaffer, 2017; Meng & Muñoz, 2016; Confait, 2015).

Teacher-student interaction

The Teaching Through Interactions framework theoretical model posits teacher-student interactions as a central driver for student learning (Hafen et al., 2015), and teacher-student interactions fall into three domains: emotional support, classroom organization, and instructional support (Downer et al., 2015). Teacher-student interactions and classroom context affected students' emotional and behavioral difficulties (Poulou, 2014; Rimm-Kaufman et al., 2015). The interactions in the classroom had a positive effect on students' learning achievement, and students and teachers of the same type tend to have more positive interactions (Sun & Wu, 2016; Eliasson et al., 2016; Le et al., 2017).

Relationships between school leadership style and effective teaching

Lamm et al. (2016) revealed transformational leadership positively predicted, and transactional leadership negatively predicted engagement in change, and Gregersen et al. (2014) confirms that the correlations between transformational leadership and emotional exhaustion were negative and significant. School leadership and context influence teaching and learning (Brown & Corkill, 2004; Saarivirta & Kumpulainen, 2016; Quinlan, 2014). Effective principals create and maintain a suitable learning environment (Duttweiler, 1988; Burch & Guarana, 2014). Formal leaders convey normative influence on general teaching practices such as setting standards, selecting materials, and assessing students (Mustafa & Lines, 2014; Christensen, 2012; Sun, 2011). The literacy leaders and principal-teacher interactions played a significant role in supporting teachers and providing student engagement (Fletcher et al., 2012; Price, 2015; Sehgal et al., 2017). Therefore, it

is concluded that there is a positive relationship between school leadership style and effective teaching.

The bulk of most studies is that little perceptible variation in schooling outcomes is attributable to the organization or administration of schooling (March, 1978: 221). Hallinger and Heck (1998) widely accepted view is that school leadership effects account for about 3 to 5 percent of the variation in student achievement, and Leithwood et al. (2006: 4) show that school leadership explains about 5 to 7 percent of the difference in pupil learning and achievement. Instructional leadership' influence is targeted at student learning via teachers (Bush & Glover, 2003: 10), and Orr (2006) confirms that leadership yielded better management and organizational practices which, in turn, will improve teaching, student learning, and student performance. Based on previous research it is concluded that school leadership style influences effective teaching.

Relationships between school leadership style and teacher-student interaction

One of the factors that makes a school effective is the principal's role (Hersh, 1985; Davis & Nicklos, 1986). Treslan (2006) revealed a statistically significant relationship between teacher satisfaction and frequency of interaction with administration, and Schwartz et al. (2006) confirmed that effective education can lead to academic improvement. Principals tended to exhibit intentional data-driven decision making in their instructional leadership practices (Gonzales, 2016), and students experienced interactions with faculty within the context of their academic organizations (Holzweiss, et al., 2013). Therefore, it is concluded that there is a positive relationship between the school leadership style and teacher-student interaction.

The most important findings confirm the relations between the instructional leadership practices and the cross-level interactions (Rew, 2013), meanwhile, Daniel and Grobe (1981) indicate that instructional leadership correlates highly with student achievement. Leadership significantly impacts school effectiveness and teacher-student interaction (Treslan, 2006; Wahlstrom & Louis, 2008). Based on previous research it is concluded that school leadership style effects teacher-student interaction.

Methodology

The purpose of the research is to investigate the influence of school leadership on effective teaching and teacher-student interaction. Based on literature review four hypothesis are formulated:

H*ypothesis # 1: There is a linear correlation between school leadership style and effective teaching.*

Hypothesis # 2: Effective teaching is explained by school leadership style

Hypothesis # 3: There is a linear correlation between the school leadership style and teacher-student interaction.

Hypothesis # 4: Teacher-student interaction is explained by school leadership style.

Method

A quantitative approach was the method used in the research. The quasi-experimental research design was used. Two groups of respondents, the experimental group, and control group were involved. Two groups of respondents were equivalent groups. Experimental and control group of teachers, were selected using existed school staff in two administrative units. The experimental group of teachers, was trained primarily using four modules with some of the main knowledge and skills in school leadership in four training sessions. Meanwhile, the control group of teachers was investigated without any prior training activity.

Sample and data collection

A structured questionnaire to experimental and control group of teachers was used in the research. Structured questionnaires are based on Crowe- associates, (2013); Sage, (2017); OECD (2017), adapted, piloted and applied by the researcher. A random cluster sample of the teachers was used in the study. The experimental group of school teachers (N=205) was selected in administrative unit No. 5 in the capital city. Control group of teachers (N= 226) was selected in administrative unit No. 8 in the capital city. The teachers were selected from lower secondary education.

Analysis

Central tendency values as well as frequency values were used to describe the school leadership style, effective teaching, and teacher- student interaction for both, experimental and control group. Pearson product-moment correlation coefficient was used to assess the relationship between school leadership styles and effective teaching as well as teacher-student interaction. Linear multivariate regression was used to assess the ability of one control measure to predict effective teaching levels as well as teacher-student interaction by school leadership styles. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity.

Descriptive statistics
School leadership style

Table 1
Central tendency values of school leadership style_Experimental group

Statistics_Experimental Group					
		Transactional	Participative	Transformational	Managerial
N	Valid	205	205	205	205
	Missing	0	0	0	0
Mean		1.40	2.57	2.84	1.48
Median		1.00	2.00	2.00	1.00
Mode		1	2	2	1
Std. Deviation		.490	.333	.323	1.028
Variance		.240	.776	.750	1.057
Skewness		.432	.311	.265	.574
Std. Error of Skewness		.170	.170	.170	.170
Kurtosis		.631	-1.103	1.180	.586
Std. Error of Kurtosis		.338	.338	.338	.338
Minimum		1	1	1	1
Maximum		5	5	5	5

Referring to central tendency values for experimental group, as shown in table 1, indicates that participative and transformational styles show higher levels (M: 2.57; 2.84; SD: .333; .323), than transactional and managerial styles (M: 1.40; 1.48; SD: .490; 1.028). The values of medians and modes, as well as minimum (very low level), and maximum (very high level) support this result.

Table 2
Central tendency values of school leadership style_Control group

Statistics_Control Group					
		Transactional	Participative	Transformational	Managerial
N	Valid	226	226	226	226
	Missing	0	0	0	0
Mean		2.40	1	1	2.30
Median		1.00	1.00	1.00	2.00
Mode		1	1	1	2
Std. Deviation		.240	1.102	1.523	.323
Variance		.119	1.647	.640	1.276
Skewness		.123	.240	.223	.264
Std. Error of Skewness		.155	.119	.119	.119
Kurtosis		-.215	-1.116	.822	.750
Std. Error of Kurtosis		.357	.237	.237	.237
Minimum		1	1	1	1
Maximum		5	5	5	5

Referring to central tendency values for control group, as shown in table 2, indicates that transactional and managerial styles show higher levels (M: 2.57; 2.84; SD: .333; .323), than participative and transformational styles (M: 1.40; 1.48; SD: .490; 1.028). The values of medians and modes, as well as minimum (very low level), and maximum (very high level) support this result. Therefore, the trained group of teachers reported higher levels of participative and transformational leadership styles compared to the untrained group of teachers that reported higher levels of transactional and managerial leadership styles.

Effective teaching

Effective teaching frequencies supported by central tendency values indicates that most of the respondents (69.9%) of experimental group use 82% of the classes for effective teaching, the remaining time is used for administrative tasks and for keeping order in the classroom. Meanwhile, approximately half of respondents (50.2%) of the control group use 80% of the classes for effective teaching only, the other time for administrative tasks and for keeping order in the classroom. Therefore, there is a considerable difference (33%) between the trained and untrained group of teachers.

Teacher-student interaction

Teacher-student interaction frequencies supported by central tendency values indicates that the majority of the respondents (78.7%) of the experimental group use teacher-student interaction in about one-quarter of lessons, the other part is for other teaching activities. Meanwhile, nearly all of respondents (87.3%) of the control group use teacher-student interaction in about one-quarter of lessons, the other part is for other teaching activities, a considerable (8.6%) difference. Therefore, there is quite a difference between the trained and untrained group of teachers.

Research results

Inferential statistics
Test of hypothesis

Test of Hypothesis # 1: There is not a positive linear correlation between school leadership style and effective teaching.

As shown in Table 3, there is a very low, negative correlation between effective teaching and transactional leadership style variables, $r = -.052$, $n = 226$, $p < .005$ for experimental group as well as for control group: $r = -.163$, $n = 205$, $p < .005$. Therefore, high levels of transactional leadership style are associated with lower levels of effective teaching.

Table 3

Correlation outputs between school leadership style and effective teaching

		Experimental group				
		Effect. Teach.	Transact.	Particip.	Transform.	Manag.
Pearson Correlation	Effect. Teach.	1.000	-.052	-.042	.043	-.060
	Transact.	-.052	1.000	.195	.253	.547
	Particip.	-.042		1.000	.051	.394
	Transform.	.043			1.000	.425
	Manag.	-.060				1.000
		Control group				
		Effect. Teach.	Transact.	Particip.	Transform.	Manag.
Pearson Correlation	Effect. Teach.	1.000	-.163	-.042	.043	-.060
	Transact.	-.052	1.000	.143	.253	.547
	Particip.	-.042		1.000	.076	.394
	Transform.	.043			1.000	.357
	Manag.	-.060				1.000

There is a low, positive correlation between effective teaching and participative leadership style variables, r = .195, n = 226, p < .005 for experimental group as well as for control group: r = .143, n = 205, p < .005. Therefore, high levels of participative leadership style are associated with high levels of effective teaching.

There is a very low, positive correlation between effective teaching and transformational leadership style variables, r = .051, n = 226, p < .005 for experimental group as well as for control group: r = .076, n = 205, p < .005. Therefore, high levels of transformational leadership style are associated with high levels of effective teaching.

There is a medium, positive correlation between effective teaching and managerial leadership style variables, r = .425, n = 226, p < .005 for experimental group as well as for control group: r = .357, n = 205, p < .005. Therefore, high levels of managerial leadership style are associated with high levels of effective teaching.

Test of hypothesis # 2: Effective teaching is not explained by school leadership style.

Table 4

Regression outputs between school leadership style and effective teaching

Experimental group									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.265[a]	.070	-.008	.994	.010	2.557	4	221	.004
Control group									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.141[a]	.020	.000	4.386	.020	1.015	4	200	.001

As shown in Table 4, the total variance of effective teaching levels explained by school leadership styles (the model) is 7.0%, F (2, 557), $p < .005$ for experimental group, and 2.0%, F (2, 775), $p < .005$ for control group. In the model, the control measure is statistically significant recording higher standardized beta values for experimental group: (Transactional *beta* = –.011; Participative beta =.031; Transformational beta= .082; Managerial beta = -.031; p < .005), and for control group: (Transactional *beta* = .140; Participative beta = -.257; Transformational beta= .043; Managerial beta= -.014; p < .005).

Test of hypothesis # 3: There is not a positive linear correlation between school leadership style and teacher-student interaction.

Table 5
Correlation outputs between school leadership style and teacher-student interaction

		Experimental group				
		Teach. - stud. Interact.	Transact.	Particip.	Transform.	Manag.
Pearson Correlation	Teach. - stud. Interact.	1.000	-.024	-.099	-.038	-.049
	Transact.	-.024	1.000	.810	.772	.819
	Particip.	-.099		1.000	.774	.817
	Transform.	-.038			1.000	.757
	Manag.	-.049				1.000
		Control group				
		Teach. - stud. Interact.	Transact.	Particip.	Transform.	Manag.
Pearson Correlation	Teach. - stud. Interact.	1.000	-.034	-.088	-.075	-.051
	Transact.	-.034	1.000	.350	.772	.819
	Particip.	-.088		1.000	.431	.817
	Transform.	-.075			1.000	.665
	Manag.	-.051				1.000

As shown in Table 5, there is a very low, negative correlation between transactional leadership style and teacher-student interaction variables, r = -.024, n = 226, p < .005 for experimental group as well as for control group: r = -.034, n = 205, p < .005. Therefore, high levels of transactional leadership style are associated with lower levels of teacher-student interaction.

There is a high, positive correlation for experimental group between participative leadership style and teacher-student interaction variables r = .810, n = 226, p < .005, and medium positive correlation for control group: r = .350, n = 205, p < .005. Therefore, high levels of participative leadership style are associated with high levels of teacher-student interaction.

There is a high, positive correlation for experimental group between transformational leadership style and teacher-student interaction variables, r = .774, n = 226, p < .005, and medium positive correlation for control group: r = .431, n = 205, p < .005. Therefore, high levels of transformational leadership style are associated with high levels of teaching time activities.

There is a high, positive correlation between managerial leadership style and teacher-student interaction variables, r = .757, n = 205, p < .005 for experimental group as well as for control group: r = .665, n = 205, p < .005. Therefore, high levels of managerial leadership style are associated with high levels of teacher-student interaction.

Test of hypothesis # 4: Teacher-student interaction is not explained by school leadership style.

Table 6

Regression outputs between school leadership style and teacher-student interaction

Experimental group									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.344[a]	.112	.094	.894	.112	6.283	4	200	.000
Control group									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.142[a]	.023	.000	4.386	.020	1.015	4	200	.002

As shown in Table 6, the total variance of teacher-student interaction levels explained by school leadership styles (the model) for experimental group was 11.2%, *F* (6, 283), *p* < .005, and for control group was 2.3%, *F* (1, 015), *p* < .005. In the model, the control measure was statistically significant recording higher standardized beta values for experimental group: (Transactional *beta* = .130; Participative beta = -.135; Transformational beta= .046; Managerial beta= .013; p < .005), and for control group: (Transactional *beta* = -.127; Participative beta = -.367; Transformational beta= .054; Managerial beta= .012; p < .005).

Discussion and implications

School leadership style

School leadership style results indicate that there is a considerable difference between the trained and untrained group of teachers regarding levels of use in school. Therefore,

the trained group of teachers reported relatively higher levels of participative, and transformational leadership styles compared to the untrained group of teachers that reported relatively higher levels of transactional, and managerial leadership styles.

The results of this study, supported by other researchers about the importance of school leadership styles have important implications for future research on school leadership. Such research should investigate various school leadership styles and their relation to other school variables. Results of this study about school leadership also have important implications for practice. The important programs or other interventions should be designed to develop and to support school leaders in their challenging work.

School leadership style and effective teaching

Effective teaching results indicate that there is a small difference between the trained and untrained group of teachers. Therefore, the trained group of teachers use more time for effective teaching compared to the untrained group of teachers.

The value of correlation between effective teaching and transactional leadership styles, for experimental and control groups, indicates that increasing of transactional leadership style values would result in a decrease of effective teaching, although there are differences between the trained and untrained group of teachers.

The value of correlation between effective teaching and participative, transformational, and managerial leadership styles, for experimental and control group, indicates that increasing of school leadership style values would result in an increase of effective teaching, although there are differences. The result was consistent with previously reported works, which argued that school leadership is in a significant and positive relationship with effective teaching (Lamm et al., 2016; Gregersen et al., 2014; Brown & Corkill, 2004; Saarivirta & Kumpulainen, 2016; Quinlan, 2014; Duttweiler, 1988; Burch & Guarana, 2014; Mustafa & Lines, 2014; Christensen, 2012; Sun, 2011; Fletcher et al., 2012; Price, 2015). In conclusion hypothesis # 1: *There is a positive linear correlation between school leadership style and effective teaching*, is well supported.

School leadership styles predict effective teaching, although there are differences between the trained and untrained group of teachers. The results were consistent with previously reported works, which argued that effective teaching is explained by school leadership styles (March, 1978: 221; Hallinger & Heck, 1998; Leithwood et al., 2006: 4; Bush & Glover, 2003: 10; Orr, 2006). In conclusion hypothesis # 2: *Effective teaching is explained by school leadership style*, is well supported.

The results of the study, supported by other researchers about the value of school leadership styles, as well as the influence of school leadership on effective teaching have important implications for future research on school leadership. Such research should investigate the influence of initial preparation, experience, degree level, etc. on school leadership. Results of this study about school leadership and its influence on other variables at school also have important implications for practice. The important programs

and other interventions should be designed to develop school leadership because it is confirmed from this study that school leadership style influences effective teaching.

School leadership style and teacher-student interaction

Teacher-student interaction results indicate that there is a small difference between the trained and untrained group of teachers. So, the trained group of teachers uses more teacher-student interaction activities compared to the untrained group of teachers.

The value of correlation between transactional leadership style and teacher-student interaction indicates that increasing of transactional leadership style values would result in a decrease of teacher-student interaction, although there are differences between the trained and untrained group of teachers.

The value of correlation between participative, transformational, and managerial leadership styles and teacher-student interaction indicates that increasing of school leadership style values would result in increasing of teacher-student interaction, although there are differences. The result was consistent with previously reported works, which argued that school leadership is in a significant and positive relationship with teacher-student interaction at school (Hersh, 1985; Davis & Nicklos, 1986; Schwartz et al., 2006; Treslan, 2006; Gonzales, 2016). In conclusion hypothesis # 3: *There is a positive linear correlation between school leadership style and teacher-student interaction*, is well supported.

School leadership style predicts teacher-student interaction although there are differences between the trained and untrained group of teachers. The result was consistent with previously reported works, which argued that teacher-student interaction is been explained by school leadership style (Rew, 2013; Daniel & Grobe, 1981; Treslan, 2006; Wahlstrom & Louis, 2008). In conclusion hypothesis # 4: *Teacher-student interaction is explained by school leadership style*, is been supported.

Results from this study, supported by other work' results about the role of school leadership style on teacher-student interaction, have important implications for future research on school leadership. Such research should investigate the influence of school leadership on school climate, class management, teaching methodologies, academic achievements, etc. Results of this study about school leadership and its influence on teacher-student interaction also have important implications for practice. Substantial devoted programs and other interventions, such as mentoring, coaching and training should design and develop to support school leaders because it is confirmed from this study that school leadership style influence teacher-student interaction.

Overall the findings of this study enhanced theoretical and practical understanding as leadership style influences effective teaching and teacher-student interaction as two important factors that support successful teaching.

Conclusions

Several limitations of the study should be acknowledged as part of the conclusion. First, the measurement of leadership style variable included participative, transformational, transactional and managerial only, excluding other leadership styles that may influence the results. Second, the study included two dependent variables, effective teaching, and teacher-student interaction, meanwhile, it is known that leadership is related to other variables as well.

The purpose of this study was to investigate the influence of school leadership style on effective teaching, and teacher-student interaction. The prior assumption was that school leadership style influences effective teaching, and teacher-student interaction. The results showed that participative and transformational styles are used more than transactional and managerial styles, although there are differences between the trained and untrained group of teachers. The results showed that effective teaching occupies the most important part of classes, although there are differences between the trained and untrained group of teachers. The study confirmed that nearly all of the teachers use teacher-student interaction in about one-quarter of lessons, although there is a significant difference between the trained and untrained group of teachers.

It is found that there is a low to medium positive correlation between effective teaching and school leadership styles. Thus, school leadership styles effect effective teaching, although there are differences between the trained and untrained group of teachers. It is found that school leadership styles predict effective teaching, although in a low percentage. The other variance may be explained by hidden or unknown variables. It is found that there is a medium to high positive correlation between school leadership styles and teacher-student interactions. Thus, school leadership styles effect teacher-student interaction, although there are differences between the trained and untrained group of teachers. It is found that school leadership styles predict teacher-student interactions, although in a relatively low percentage. The other variance may be explained by hidden or unknown variables.

References

Allix, N. M. (2000). Transformational leadership: democratic or despotic? *Educational Management and Administration*, *28(1),* 7–20.

Avolio, B. J. (2005). *Leadership Development in Balance*: Made/Born. London: Lawrence Erlbaum Associates.

Beare, H., Caldwell, B., Millikan, R. (1992). *Creating an Excellent School.* London: Routledge.

Bottery, M. (2001). Globalisation and the UK competition state: no room for transformational leadership in education? *School Leadership and Management*, *21(2),* 199–218.

Brown, W., Corkill, P. M. (2004). The Practice of Virtual Teaching: School Leaders Who Want to Teach an Online College Course Need to Be Mindful of Effective Tricks, *School Administrator*, *61(4)*, 26. ISSN: 0036-6439.

Burch, C. T., Guarana, L. C. (2014). The Comparative Influences of Transformational Leadership and Leader-Member Exchange on Follower Engagement, *Journal of leadership studies*, *8(3)*, 6–25. doi: 10.1002/jls.21334.

Bush, T. (1986). *Theories of Educational Management*. London: Harper and Row.

Bush, T. (1995). *Theories of Educational Management*. 2nd edn. London: Paul Chapman Publishing.

Bush, T. (1998). The National Professional Qualification for Headship: the key to effective school leadership? *School Leadership and Management*, *18(3)*, 321–334.

Bush, T. (2003). *Leadership and Management Development in Education*. London: Sage.

Bush, T. (2003). *Theories of Educational Leadership and Management*. 3rd edn. London: Sage.

Bush, T., Glover, D. (2003). *School Leadership: Concepts and Evidence*. Nottingham: National College for School Leadership.

Bush, T., Middlewood, D. (2005). *Leading and Managing People in Education*. London: Sage.

Caldwell, B. (1992). The principal as leader of the self-managing school in Australia, *Journal of Educational Administration*, *30(3)*, 6–19.

Caldwell, B., Spinks, J. (1992). *Leading the Self-Managing School*. London: Falmer Press.

Cerni, T., Curtis, J. G., Colmar, H. S. (2014). Cognitive-Experiential Leadership Model: How Leaders' Information-Processing Systems Can Influence Leadership Styles. Influencing Tactics, Conflict Management, and Organizational Outcomes. *Journal of leadership studies*, *8(3)*, 26–39. doi: 10.1002/jls.21335.

Cetin, M., Kinik, F., Sehkar, F. (2016). Effects of Leadership on Student Success through the Balanced Leadership Framework, *Universal Journal of Educational Research*, *4(4)*, 675–682.

Chirichello, M. (1999). *Building capacity for change: transformational leadership for school principals*. Paper presented at ICSEI Conference, San Antonio, 3–6 January.

Christensen, A. L. (2012). *The Characteristics of Effective Teacher Leadership in School-Based Learning Communities*. ProQuest LLC, Ph. D. Dissertation. The University of Notre Dame. ISBN: 978-1-3037-4175-3.

Confait, S. (2015). Beginning Teachers' Challenges in Their Pursuit of Effective Teaching Practices. *Cogent Education*, v2 n1 Article 991179 2015, EISSN-2331-186X.

Crow, G. (2006). Complexity and the beginning principal in the United States: perspectives on socialization. *Journal of Educational Administration, 44(4)*, 310–325.

Crowe- associates (2013). *Leadership Styles Questionnaire*. Retrieved from www.crowe-associates.co.uk/wp.../2013/.../Leadership-Styles-Questionnaire-2013.doc, January 20, 2017.

Daniel, G. S., Grobe, R. P. (1981). *Variables Associated with Effective Schooling*. ERIC.

Davis, L. E., Nicklos, R. E. (1986). *Instructional Problem-Solving in Staff Development*. The Principal's Role as an Instructional Leader. ERIC.

Day, C., Harris, A., Hadfield, M. (2001). Challenging the orthodoxy of effective school leadership. *International Journal of Leadership in Education, 4(1)*, 39–56.

Downer, J. T., Stuhlman, M., Schweig, J., Martínez, J. F., Ruzek, E. (2015) Measuring Effective Teacher-Student Interactions from a Student Perspective: A Multilevel Analysis. *Journal of Early Adolescence*, *35(5–6)*, 722–758. ISSN-0272-4316.

Dressler, B. (2001). Charter school leadership. *Education and Urban Society, 33(2)*, 170–185.

Duttweiler, P. C. (1988). New Insights from Research on Effective Schools. *Insights on Educational Policy and Practice, Number 4*. ERIC.

Eliasson, N., Sørensen, H., Karlsson, K. G. (2016). Teacher-Student Interaction in Contemporary Science Classrooms: Is Participation Still a Question of Gender? *International Journal of Science Education*, *38(10)*, 1655–1672. ISSN-0950-0693.

Fletcher, J., Grimley, M., Greenwood, J., Parkhill, F. (2012). What Are the School-Wide Strategies that Support Sustained, Regular and Effective Instructional Reading Programmes for 10-13-Year-Old Students? A New Zealand Experience. *Teachers and Teaching: Theory and Practice*, *18(4)*, 399–416.

Gebre, E., Saroyan, A., Aulls, M. W. (2015). Conceptions of Effective Teaching and Perceived Use of Computer Technologies in Active Learning Classrooms. *International Journal of Teaching and Learning in Higher Education*, *27(2)*, 204–220. EISSN-1812-9129.

Gonzales, C. (2016). *Leadership Styles of Principals in Successful Title I Elementary Schools*. ProQuest *LLC*, Ed. D. Dissertation. Ball State University, ISBN: 978-1-3397-2219-1.

Gregersen, S., Vincent-Höper, S., Nienhaus, A. (2014). The Relation Between Leadership and Perceived Well-Being: What Role Does Occupational Self-Efficacy Play. *Journal of leadership studies*, *8(2)*, 6–18. doi: 10.1002/jls.21318.

Guthrie, K. L., Callahan, K. (2016). Liberal Arts: Leadership Education in the 21st Century. *New Directions for Higher Education*, *(174)*, 21–33.

Hafen, C. A., Hamre, B. K., Allen, J. P., Bell, C. A., Gitomer, D. H., Pianta, R. C. (2015). Teaching through Interactions in Secondary School Classrooms: Revisiting the Factor Structure and Practical Application of the Classroom Assessment Scoring System-Secondary. *Journal of Early Adolescence*, *35(5–6)*, 651–680. ISSN-0272-4316.

Hallinger, P. (2001). Leading educational change in East Asian schools. *International Studies in Educational Administration*, *29(2)*, 61–72.

Hallinger, P., Heck, R. (1998). Exploring the principal's contribution to school effectiveness: 1980–199. *School Effectiveness and School Improvement, 9,* 157–191.

Hersh, R. H. (1985). *Organizational Efficacy as a Research Focus for School Improvement*. National Center for Education Statistics (ED), Washington, DC.

Hill, L. H. (2014). Graduate Students' Perspectives on Effective Teaching. *Adult Learning*, *25(2)*, 57–65. ISSN-1045-1595.

Holzweiss, P. C., Parrott, K. P., Cole, B. R. (2013). Informal Learning in Academic Student Organizations: An Exploratory Examination of Student-Faculty Interactions and the Relationship to Leadership. *Journal of Leadership Education*, *12(2)*, 18–34. EISSN-1552-9045.

Huber, S. (2004a). The context of research. In S. Huber (ed.). *Preparing School Leaders for the 21st Century: An International Comparison of Development Programs in 15 Countries*, London: Routledge Falmer.

Klotz, J., Whiting, M. (1998). *Integrating Curriculum and Instruction*. Administrative Practice to Create New Educational Leaders, ERIC.

Lamm, A. J., Lamm, K. W., Rodriguez, M. T., Owens, C. T. (2016). Examining Leadership Style Influence on Engagement in a National Change Process: Implications for Leadership Education. *Journal of Leadership Education, 15(4)*, 1–14.

Layne, L. (2012). Defining Effective Teaching. *Journal on Excellence in College Teaching*, *23(1)*, 43–68. ISSN-1052-4800.

Le, T., Bolt, D., Camburn, E., Goff, P., Rohe, K. (2017). Latent Factors in Student-Teacher Interaction Factor Analysis. *Journal of Educational and Behavioral Statistics*, *42(2)*, 115–144. ISSN-1076-9986.

Leithwood, K. (1994). Leadership for school restructuring. *Educational Administration Quarterly*, *30(4)*, 498–518.

Leithwood, K., Day, C., Sammons, P., Harris, A., Hopkins, D. (2006). *Seven Strong Claims about Successful School Leadership.* London: Department for Education and Skills.

Leithwood, K., Jantzi, D., Steinbach, R. (1999). *Changing Leadership for Changing Times*. Buckingham: Open University Press.

Lyons, W. (2016). Principal Preservice Education for Leadership in Inclusive Schools. *Canadian Journal of Action Research*, *17(1)*, 36–50.

March, J. G. (1978). American public-school administration: a short analysis. *The School Review, 86(2)*, 217–250.

Meng, L., Muñoz, M. (2016). Teachers' Perceptions of Effective Teaching: A Comparative Study of Elementary School Teachers from China and the USA. *Educational Assessment, Evaluation, and Accountability*, *28(2)*, 179–199. ISSN-1874-8597.

Miller, T. W., Miller, J. M. (2001). Educational leadership in the new millennium: a vision for 2020. *International Journal of Leadership in Education*, *4(2)*, 181–189.

Mustafa, G., Lines, R. (2014). Influence of Leadership on Job Satisfaction: The Moderating Effects of Follower Individual-Level Masculinity-Femininity Values. *Journal of leadership studies*, *7(4)*, 23–39. doi: 10.1002/jls.21307.

OECD (2017). *Teaching and Learning International Survey (TALIS).* Teacher Questionnaire. Retrieved from http://www.oecd.org/ (January 20, 2017).

Ogurlu, Ü., Serap, E. (2014). Effects of a Leadership Development Program on Gifted and Non-Gifted Students' Leadership Skills. *Eurasian Journal of Educational Research, 55*, 223–242.

Orr, M. T. (2006). Research on Leadership Education as a Reform Strategy. *Journal of Research on Leadership Education, 1(1).*

Poulou, M. (2014). The Effects on Students' Emotional and Behavioral Difficulties of Teacher-Student Interactions, Students' Social Skills and Classroom Context. *British Educational Research Journal*, *40(6)*, 986–1004. ISSN-0141-1926.

Price, H. E. (2015). Principals' Social Interactions with Teachers: How Principal-Teacher Social Relations Correlate with Teachers' Perceptions of Student Engagement. *Journal of Educational Administration*, *53(1)*, 116–139. ISSN-0957-8234.

Quinlan, K., M. (2014) *Leadership "of" Teaching "for" Student Learning in Higher Education: What Is Needed?* Higher Education Research and Development, 33(1), 32–45.

Rew, W. J. (2013). *Instructional Leadership Practices and Teacher Efficacy Beliefs: Cross-National Evidence from TALIS*. ProQuest *LLC*, Ph. D. Dissertation. The Florida State University. ISBN: 978-1-3034-3384-9.

Rimm-Kaufman, S. E., Baroody, A. E., Larsen, R. A. A., Curby, T. W., Abry, T. (2015). To What Extent Do Teacher-Student Interaction Quality and Student Gender Contribute to Fifth Graders' Engagement in Mathematics Learning? *Journal of Educational Psychology*, *107(1)*, 170–185. ISSN-0022-0663.

Saarivirta, T., Kumpulainen, K. (2016). School Autonomy, Leadership, and Student Achievement: Reflections from Finland. *International Journal of Educational Management, 30(7)*, 1268–1278.

Sackney, L., Walker, K. (2006). Canadian perspectives on beginning principals: their role in building capacity for learning communities. *Journal of Educational Administration, 44(4)*, 341–358.

Sage. (2017). *Leadership style assessment*. Retrieved from https://studysites.sagepub.com/northouseintro2e/ (January 20, 2017).

Savery, L., Soutar, G., Dyson, J. (1992). Ideal decision-making styles indicated by deputy principals. *Journal of Educational Administration*, *30(2)*, 18–25.

Schwartz, A. G. (2012). *The Relationship between Teacher Satisfaction and Frequency of Interaction with Site Administration*. ProQuest LLC, Ed. D. Dissertation, Northern Arizona University. ISBN: 978-1-2673-6721-1.

Schwartz, M. J., Beatty, A., Dachnowicz, E. (2006). Character Education: Frill or Foundation? *Principal Leadership*, *7(4)*, 25–30. ISSN: ISSN-1529-8957.

Sehgal, P., Nambudiri, R., Mishra, S. K. (2017). Teacher Effectiveness through Self-Efficacy, Collaboration, and Principal Leadership. *International Journal of Educational Management*, *31(4)*, 505–517. ISSN-0951-354X.

Sergiovanni, T. (1984). Leadership and excellence in schooling. *Educational Leadership*, *41(5)*, 4–13.

Sun, J. C., Wu, Y. (2016). Analysis of Learning Achievement and Teacher-Student Interactions in Flipped and Conventional Classrooms. *International Review of Research in Open and Distributed Learning*, *17(1)*, 79–99. EISSN-1492-3831.

Sun, M. (2011). *Exploring How School Intra-Organizational Mechanisms Mediate the Effects of External Interventions on Improving Teaching and Learning*. ProQuest LLC, Ph. D. Dissertation, Michigan State University. ISBN: ISBN-978-1-1246-0256-1.

Tavakoli, M., Baniasad-Azad, S. (2017). Teachers' Conceptions of Effective Teaching and Their Teaching Practices: A Mixed-Method Approach. *Teachers and Teaching: Theory and Practice*, *23(6)*, 674-688. ISSN-1354-0602.

Treslan, D. L. (2006). Transformational Leadership in the Classroom: Any Evidence? *Education Canada*, *46(2)*, 58–62. ISSN: 0013-1253.

Tusting, K., Barton, D. (2006). *Models of Adult Learning*: *A Literature Review*. NRDC Literature Review. London: National Institute for Continuing Adult Education.

Wahlstrom, K. L., Louis, K. S. (2008). How Teachers Experience Principal Leadership: The Roles of Professional Community, Trust, Efficacy, and Shared Responsibility. *Educational Administration Quarterly*, *44(4)*, 458–495. ISSN: 0013-161X.

Welsh, K. A., Schaffer, C. (2017). Developing the Effective Teaching Skills of Teacher Candidates during Early Field Experiences. *Educational Forum*, *81(3)*, 301–321. ISSN-0013-1725.

Werner, L., Hellstrom, D., Chung, J., Kessenich, K., Taylor, L. Jr., Capeder, A. (2016) Bridging Theory and Practice in the Leadership Classroom: Intentional Emergence as a Modern Pedagogy. *Journal of Leadership Education*, *15(4)*, 206–216.

Yukl, G. A. (2002). *Leadership in Organizations.* 5th edn. Upper Saddle River, NJ: Prentice-Hall.

Mokyklinės lyderystės stiliaus įtaka veiksmingam mokymuisi, mokytojų ir mokinių sąveikai

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Santrauka

Efektyvi lyderystė yra veiksmingo mokymo ir mokinių akademinės pažangos pagrindas. Bushas (2003) nustatė devynis švietimo lyderystės modelius: vadovaujamosios, dalyvaujamosios, transformacinės, tarpasmeninės, transkacinės, postmoderniosios, situacinės, moralinės ir instrukcinės. Tyrime buvo nagrinėjami keturi švietimo lyderystės modeliai: (1) transakcinė lyderystė, (2) dalyvaujamoji lyderystė, (3) transformacinė lyderystė, (4) vadovaujamoji lyderystė. Tyrimo tikslas – ištirti mokyklinės lyderystės įtaką veiksmingam mokymui, mokytojų ir mokinių sąveikai. Tyrime buvo naudojamas kiekybinis tyrimo metodas. Taikyta kvazieksperimentinė tyrimo struktūra.

Rezultatai parodė, kad dalyvaujamosios ir transformacinės lyderystės stiliai mokykloje taikomi dažniau nei transakcinės ar vadovaujamosios lyderystės. Taip pat rezultatai atskleidė, kad veiksmingas mokymas užima svarbiausią pamokų dalį ir beveik visi mokytojai taiko mokytojų ir mokinių sąveiką maždaug ketvirtadalyje pamokų. Tarp veiksmingo mokymo ir mokyklinės lyderystės stilių buvo nustatyta nuo žemo iki vidutinio laipsnio teigiama koreliacija, tad mokyklinės lyderystės stiliai leidžia prognozuoti veiksmingą mokymą nors ir nedideliu procentu. Tarp mokyklinės lyderystės stilių ir mokytojų ir mokinių sąveikos buvo nustatyta vidutinio ir aukšto laipsnio teigiama koreliacija, tad mokyklinės lyderystės stiliai leidžia prognozuoti mokytojų ir mokinių sąveiką nors ir nedideliu procentu.

Esminiai žodžiai: *mokyklinės lyderystės stilius, veiksmingas mokymas, mokytojų ir mokinių sąveika.*

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