



Research Article

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## Collaborative Leadership and Its Relationship with Students' Educational Attainment

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### Abstract

The study was aimed at identifying the relationship between collaborative leadership and students' educational attainment in Madinah's secondary schools and identifying to what extent collaborative leadership is practised. The researchers used the quantitative methodology to achieve the study's objectives through a questionnaire. The study sample consisted of (377) teachers. The researchers used the Statistical Package for Social Sciences (SPSS) program to analyse the data. The most notable findings are that the practice of collaborative leadership by secondary school principals in Madinah was high in relationships with schools' staff, parents and students. According to the teachers, principals in secondary schools practice collaborative leadership style (SPCLS) to a high degree, as the Mean was (4.20) with a standard deviation of (0.62). All participating schools practice collaborative leadership similarly, and low-achieving and high-achieving schools do not differ significantly. Schools were divided into two groups to determine if collaborative leadership correlates with student achievement. In high-achieving schools, collaborative leadership is directly correlated with student achievement (medium value).

**Keywords:** leadership, collaborative leadership, attainment, secondary schools, academic achievement

### 1. Introduction

The school administration receives the attention of researchers in the field of educational administration because school leaders are the key people who implement the policies and meet community expectations. Scientific studies recommended adopting modern administrative trends as they are more appropriate for school administration, such as interactive leadership, situational leadership, and collaborative leadership (Al-Mutairi, 2015; & Al-Harthy, 2018).

Over the past three decades, school effectiveness and improvement literature have consistently highlighted the crucial role of school leaders (Scheerens & Bosker, 1997; Teddlie & Reynolds, 2000; Townsend, 2007). The literature on leadership effects has provided further evidence that school leadership impacts student learning (Leithwood et al., 2006). Evidence has revealed that there is no relationship between transformational leadership and student achievement (Allen et al., 2015). The Ministry of Education (MOE) emphasised "the urgency to change the role of the school leader from

the traditional leadership to a new one that adopts strategic plans in the light of a scientific vision, as a social leader who is aware of the school's role in society and increases the parent's engagement in the education process." School leaders play an important role in fostering connections between school personnel and the communities in which they reside (Fullan, 2001). Therefore, collaborative leadership between school leaders, staff and students' parents can significantly enhance students' educational attainment. The most effective school leaders typically manage to engage and gain the trust of parents and wider communities (Albeladi, 2022; & Hargreaves et al., 2008).

Hence, an attractive schoolwork environment is formed in an atmosphere emphasising collaboration that reflects on the student and his academic attainment (Adeogun & Olisaemeka, 2011). Over the course of the past few decades, a series of research summaries have been published that describe some of the most important aspects of what is generally referred to as the basic practice of school leadership that are considered to be the keys to success (Leithwood & Jantzi, 2005; Leithwood & Riehl, 2005; Leithwood et al., 2004). As outlined in these research summaries, the most common practices are divided into four broad categories: establishing a clear vision for the organisation, developing its people, designing the organisational structure, and ensuring that instruction is managed effectively.

The Education and Training Evaluation Commission (ETEC) and the MOE have established a new initiative aiming to rank schools called "Tarteeb index." This index seeks to classify schools, departments of education and offices according to the performance of their students in standardised tests such as the General Aptitude Test (GAT) and Academic Achievement Tests (AAT) (ETEC, 2023). It also aims to improve student performance on these tests, encourage competition between schools, departments of education and offices, and help parents and students find the most suitable schools.

Assessing students' learning outcomes is an essential part of the educational process (Albeladi, 2022). The ETEC's new initiative motivates schools to improve their students' capabilities, performance, and learning outcomes. The indicator "Tarteeb" shows the school's performance, comparing it with its previous performance and the average performance of other schools at the Education Office and Education Department level. These indexes put pressure on school leaders to rank highly in the education department, competing with each other and allowing parents and students to evaluate and critique the schools. The school's performance depends on the leadership role and their practices and collaboration with teachers and the community. This requires school leaders to complete new tasks and responsibilities to be more collaborative and shift the work structure from individual administration, which is the most popular way of managing schools in the KSA (Albeladi, 2016), to a more collaborative environment.

## 2. Theoretical/Conceptual Framework

Student learning is largely indirect as a result of leadership. In other words, for leaders to succeed, they must influence conditions in a way that directly impacts student learning. Identifying the conditions that have the greatest impact on students and those that can be directly modified by leaders is one of the biggest challenges to successful leadership (Leithwood & Levin, 2011). The school administration has a fundamental role in improving learning outcomes and raising academic attainment by reinforcing human relations, recruiting highly qualified teachers, employing the curriculum in a way that is commensurate with students' capabilities, and involving the local community (Mulford, 2003). The nature of the curriculum taught in a school, the quality of the classroom instruction provided in the classroom, and the disciplinary climate in the school and the classroom are some factors that contribute to such conditions (Leithwood & Levin, 2011). Several other studies suggest that leadership can play an important role in facilitating the development of more collaborative cultures within their schools and suggest practices that can assist organisations in achieving this goal (Leithwood et al., 2006; Waters et al., 2003). Moreover, building a culture of achievement-oriented and positive collaboration is one of the most crucial parts of leaders' tasks in schools with low achievement rates (Jacobson et al., 2005; West et al., 2005).

A growing number of researchers have also emphasised that school leadership plays a complex and indirect role in student achievement, with the effect being extensive and hard to quantify (Leithwood et al., 2010; Day et al., 2016). Students' performance in classrooms was found to be positively influenced by teachers' work in the following dimensions: creating a climate of trust and collaboration, defining an organisational mission and monitoring the implementation of that mission, and taking initiatives and taking risks as part of a collaborative approach which was complemented by ongoing and relevant professional development (Silins and Mulford, 2002 a & b). Since effective leadership is essential for students to achieve good learning outcomes, the demand for effective leadership has grown rapidly in recent years (Gumus et al., 2018).

A collaborative leadership style can be appropriate for school administrators to ensure increasing the students' academic attainment. In the literature, several terms are used interchangeably when discussing distributed leadership, including 'shared leadership', 'collaborative leadership', 'delegated leadership', and 'dispersed leadership' (Gumus et al., 2018; Spillane, 2005). In fact, students' academic attainment is affected by numerous factors, such as the teacher, the curricula, and the school, in addition to social and psychological factors. In order to succeed in collaborative leadership, team members must have shared professional values (Bush, 2019). Very few published studies have investigated the impact of the collaborative leadership model on the improvement of schools. Even fewer have examined how it affects students' achievement (Hallinger & Heck, 2010). Recent research has shown that distributed leadership and collaborative leadership have been given more attention by researchers in recent years (Gumus et al., 2018). Therefore, this research aims to fill the literature gap to investigate the relationship between collaborative leadership style and students' attainment in secondary schools in Madinah-KSA.

### 3. Literature Review

A growing body of literature on collaborative leadership has been published in the KSA over the last few years, and this paper provides a brief overview of the research published on this topic. The Saudi Arabian educational sector has been reported to be highly centralised and traditionalist, adversely affecting creativity and inclusivity and, as a result, negatively impacting students' performance as a result (Albeladi, 2016; Alghulayqah, 2022). Al-Mutairi (2015) found that secondary school principals practice collaborative leadership to a moderate level in their schools. Although organisational loyalty levels received a medium level in this study, the results also indicated a statistically significant correlation between the degree to which collaborative leadership is practised and the level of organisational loyalty.

Moreover, among the female leaders of secondary schools in Riyadh who practised collaborative leadership to a high degree, the Al-Harthy study (2018) concluded that women are practising a high level of collaborative leadership. In addition, the study showed a high level of organisational loyalty among female high school teachers in Riyadh. In Riyadh, the degree of collaborative leadership among school leaders and organisational loyalty was statistically significant. Al-Rifai's study (2016), which examined the practice of collaborative leadership by female principals of secondary schools in Jeddah, concluded that female principals were involved in this practice to a considerable extent. Furthermore, she found that the level of professional development reached such a high level that she could conclude a positive correlation between the degree of the respondents who practised collaborative leadership and their appreciation for the level of professional development attained as a result. Darwish (2019) concluded that there was a medium degree of collaboration between leaders and decision-makers when determining the degree of leadership and effective decision-making in his study. There is also a direct correlation between the level of collaborative leadership practised by female school leaders and the level of effective decision-making in Al-Kharj schools. A study conducted in Hafar Albatin schools found a moderate level of involvement among school leaders in collaborative leadership practices (Alshamri, 2020).

Few studies have examined the link between students' attainment and leadership style in the

context of Saudi Arabia. Abu Sukkar's study (2009) found no statistically significant differences between teachers' estimates of the role of the school principal in the level of academic attainment due to gender, experience, or academic qualification. According to the Rahmatu-Allah Study (2010), school administration significantly impacts academic achievement in Sudanese schools. Also, creating a supportive school environment and promoting student activities leads to improved academic achievement.

The current study differs from previous studies in the place of study, the study population, and the study sample. The current study seeks to be applied in secondary schools in Madinah in the academic year 2022, while previous studies are varied in their application locations and in the methodology of the study.

#### 4. Methods

The researchers used the quantitative correlative approach to verify whether there is a correlation between collaborative leadership and academic attainment in secondary schools in Madinah. Our research also applied the questionnaire to measure the level of school principals' collaborative leadership style (SPCLS) perceived by teachers. Initially developed by the researchers, the questionnaire was presented to specialists in educational administration for review. The questionnaire had three dimensions: leadership, the delegation of authority, and human relations. Using a Likert scale, this questionnaire was designed to assess each answer on a scale of 1-5; 1 = strongly disagree to 5 = strongly agree. Among the questions on the questionnaire, there were also (38) items grouped into three dimensions: (1) leadership includes 9 items; (2) delegation of authority includes 8 items; (3) human relations includes 10 items related to the relationship between the school's leaders and the school's employees and 11 items related to students and parents.

Data have been gathered from the (ETEC) regarding students' average academic attainment scores on a school-by-school basis. The result presented the achievement of students in each school in 2020. We matched the results of each school and the level of collaborative leadership practice in schools by using SPSS to compare the results. It is important to note that we have sent an online questionnaire to all schools in Madinah, which constitutes 71 schools. The invitation letter was provided by the DOE to all teachers asking them to participate in this study. However, we only received 377 completed questionnaires from 27 schools.

#### 5. Study Questions

This study aims to answer the key questions:

1. What is the degree of practising school principals' collaborative leadership style (SPCLS) of secondary schools in Madinah from the teachers' point of view?
2. Is there a statistically significant correlation at the level of significance (0.05) between the degree of applying collaborative leadership in school leadership and students' academic attainment?

#### 6. Characteristics of the Study Sample

Table 1 shows the status of teachers in different sectors of their schools. The table also shows teachers' education qualifications and their work experience.

**Table 1.** Characteristics of the study sample (N=)

Variable		Number of Teachers	Percentage
School Type	Public schools (governmental funded)	265	70.5%
	Private schools	112	29.5%

Variable		Number of Teachers	Percentage
Qualification	Bachelor	321	85.15%
	Master's	56	14.85%
Years of Experience	From (1) year to less than (10) years.	44	11.6%
	From (11) years to less than (20) years.	186	49.3%
	More than (20) years.	147	39%
Total		377	100%

### 6.1 Internal Consistency Validity

The researchers conducted a preliminary, exploratory study of (30) teachers from the study population. After applying the questionnaire to calculate the Pearson correlation coefficient between the degree of each axis with the total score of the scale (questionnaire) to ensure the extent of coherence and homogeneity of questionnaire dimensions, the following data was found.

**Table 2.** Correlation coefficients between the scores of each dimension and the overall average of the questionnaire

	SPCLS's Dimensions	Correlation Coefficient
1	Leadership	0.919 **
2	Delegation of authorities	0.817 **
3	Human relations	0.922 **

\*\* significant at the level (0.01).

The above table shows that the values of the correlation coefficients for the dimensions that make up the questionnaire are all statistically significant at the level of significance (0.01). All the values of the correlation coefficients ranged between (0.817 -0.924), indicating a high degree of validity for the questionnaire.

## 7. Results

The study aimed to identify the degree to which collaborative leadership is practised in secondary schools in Madinah. It also evaluated whether there is a statistically significant relationship between collaborative leadership and students' attainment in secondary schools.

To measure the reliability of the research tool (questionnaire), the researchers utilised Cronbach's alpha reliability coefficient. Table 2 shows the data regarding the internal reliability of the SPCLS's dimensions based on the results that have been obtained. In general, it found that Cronbach's alpha coefficients for the SPCLS questionnaire range from a score of .84 to a score of .96. Therefore, this research tool has acceptable reliability coefficients, and the application can be relied upon.

**Table 3.** Internal Reliability of the SPCLS's (Cronbach's alpha coefficients) and the degree of practicing of SPCLS

SPCLS's Dimensions	Cronbach's Alpha	M	SD	Ranking
1. Leadership	0.888	4.24	.61	2
2. Delegation of authorities	0.847	4.02	.66	3
3. Human relations	0.961	4.35	.59	1
Total	0.966	4.20	.62	

To answer the first question of the study concerning teachers' perspectives on the degree of practising school principals' collaborative leadership style (SPCLS), we used descriptive analysis, as

presented in Table 2. A general view of all the schools participating in the study, table 2 shows that the degree of school principals' practicing collaborative leadership style (SPCLS) in secondary schools from the teachers' point of view was high, as the Mean was (4.20) with a standard deviation of (0.62). It is clear from these results that the practice of collaborative leadership is similar in all participating schools, and there is no significant difference between low-achieving and high-achieving schools.

Concerning the study's second question, regarding the statistically significant correlation between the degree of applying collaborative leadership in school leadership and students' academic attainment, we aimed to gather information about students' achievement in the national Academic Achievement Tests (AAT). The source of this data was the Educational Testing Evaluation Center (ETEC). Each school has a score representing the average of its students' scores in the national Academic Achievement Tests (AAT). Our data is based solely on schools that have agreed to participate in the study and have answered our questionnaire. As a result of this study, as shown in Table 3, we found that among participating schools, schools with high levels of achievement had scores averaging 80.60, and schools with low levels of achievement averaged 56.67. Thus, we calculated a mean score of 68.63. As a result of the correlation between SPCLS and students' attainment, the result was high in all domains, which was of no significance in determining students' achievement levels, as shown in Table 4. Thus, both public and private schools (N=27) were grouped into two categories based on their results: high-achieving schools (N=14), which had scores above 65%, and low-achieving schools (N=13), with scores below 65%. This method of classification was similar to the ETEC method.

**Table 4.** School classification (high or low) based on the average attainment test scores of the students of each school

Attainment Test	High-achieving schools (N=14)	Low-achieving schools (N=13)	All Schools (N=27)
Academic Achievement Tests (AAT)	High: 80.60 Low: 65.12 Mean: 72.86	High: 64.67 Low: 56.67 Mean: 60.67	High: 80.60 Low: 56.67 Mean: 68.63

Concerning the study's second question, the Pearson correlation coefficient was used between the degree of applying collaborative leadership among school leaders and the Mean attainment test score of students in secondary schools to which the study was applied. The results are as follows:

**Table 5.** Pearson test results for the relationship between collaborative leadership and student attainment in secondary schools in Madinah

Schools	High-achieving Schools (N=14)		Low-achieving Schools (N=13)		All Schools (N=27)	
	Correlation Coefficient (r)	Statistical significance	Correlation Coefficient (r)	Statistical significance	Correlation Coefficient (r)	Statistical significance
Leadership	0.438	P < 0.01	0.072	P > 0.05	0.521	P < 0.05
Delegation of authorities	0.435	P < 0.01	0.001	P > 0.05	0.776	P < 0.05
Human relations	0.434	P < 0.01	0.081	P > 0.05	0.580	P < 0.05
Total	0.434	P < 0.01	0.067	P > 0.05	0.521	P < 0.05

Table 3 depicts the value of the Pearson correlation coefficient between collaborative leadership and student attainment in high-achieving schools ( $r = 0.434$ ), which is a statistically significant value at the level of significance (0.01). This indicates a direct correlation relationship (medium value) between collaborative leadership and student attainment in high-achieving schools only. The first dimension concerns collaborative leadership (0.438), the second dimension concerns the delegation of authorities with a value of (0.435), and the third dimension concerns human relations with a value

of (0.434). Each of them is statistically significant at the level of significance (0.01).

Additionally, Table 3 depicts the value of the Pearson correlation coefficient between collaborative leadership and student attainment in low-achieving schools ( $r = 0.067$ ), which is a non-statistically significant value at the level of significance (0.01). This indicates no correlation between collaborative leadership and student attainment in low-achievement secondary schools. Moreover, upon evaluating all schools ( $N=27$ ), we found that in the previous table, there is no correlation between collaborative leadership and student attainment in secondary schools in all dimensions of collaborative leadership. The result indicated that ( $r= 0.521$ ) is not statistically significant at the level of significance (0.01).

## 8. Discussion

Among the main findings of this study were the following: first of all, from the point of view of the teachers, it appears that the principals of secondary schools maintain a high level of practice of collaborative leadership style (SPCLS), as shown in the Mean score of (4.20) with a standard deviation of (.62). The results of this study are similar to those found by (Al-Ajmi, 2010) and (Al-Harthy, 2018), who found that school principals practised a high level of collaborative leadership. Unlike other studies that showed a medium degree of collaborative leadership in schools (Al-Mutairi, 2015; Alshamri, 2020; Darwish, 2019), the result of this study was high in all schools regardless of whether they were high or low-achieving schools in Madinah. It has been confirmed by Mubarak (2019) that collaborative leadership is the most effective form of leadership since relationships among members are the highest on the list of traits. Leadership in schools can encourage collaborative cultures and suggest practices that can help organisations achieve this (Leithwood et al., 2006; Waters et al., 2003).

Secondly, we found that in all schools ( $N=27$ ), there was no correlation between collaborative leadership and student achievement in secondary schools. When we dig deeper into the analysis, it is possible to distinguish schools with high academic achievement from those with low academic achievement. We can distinguish this study from previous studies, which normally indicate moderate to high levels of collaborative leadership in schools. Nevertheless, the analysis shows how the practice varies when we divide the school into categories. High-achieving schools showed a statistically significant correlation ( $r = 0.434$ ) between collaborative leadership and student achievement. This finding, supported by studies on leadership effects, has indicated that school leadership is linked to student achievement (Leithwood et al., 2006). The Pearson correlation coefficient between collaborative leadership and student achievement in low-achieving schools was also ( $r = 0.067$ ) but was not statistically significant. This finding relates to Allen's (2015) finding, who found that transformational leadership is not associated with student achievement. Leadership can play a crucial role in fostering a more collaborative culture in schools, according to studies such as (Leithwood et al., 2006; Waters et al., 2003). Particularly in low-achievement schools, it is imperative that school leaders use a collaborative leadership approach to help build a culture of cooperation among the staff, parents, and students and improve school performance (Jacobson et al., 2005; West, et al., 2005).

## 9. Conclusion

This study offers several contributions. Among these contributions is that it is the first study to examine the relationship between leadership at an organisational level and student achievement in the KSA from a teacher's perspective. A second contribution of this study is how the data is analysed by dividing schools into high-achieving and low-achieving schools to determine to what extent the collaborative leadership style (SPCLS) has been implemented in these groups of schools. As a result of our study, we believe that school principals indirectly affect students' learning as a result of their role as principals. However, one of the most crucial elements of improving a student's performance on national and international tests is the development of a collaborative leadership style within a school.

The three dimensions of teachers' work that influence students' classroom performance were as follows: creating a climate of trust and collaboration, defining a mission, and monitoring its implementation (Silins and Mulford, 2002 a & b).

The researchers recommend the following solutions for policymakers. First, they should arrange training sessions and workshops to enhance the practice of collaborative leadership among schools. Secondly, they should establish a special measurement system for the school's performance and leadership style based on the Tarteeb Index run by (ETEC) which identifies schools with high, medium, and low achievement levels.

Based on the importance of the subject of collaborative leadership and the importance of students' attainment in light of the research findings, the researchers suggest that researchers conduct field research in light of the research findings. It has been suggested that researchers investigate the following topics: factors related to students' academic achievement against other socio-economic variables and a case study of private schools with high achievement rates.

This study has several limitations, including only a small sample of participants from 27 public and private high schools in the Madinah area. However, although only a small sample was used in this study, the researchers recommend that the variables be examined in larger samples and in different sessions. Another limitation of this study is that the findings were derived solely from teachers' perceptions of the questionnaire survey. To verify the results, school principals, deputy principals, supervisors, and parents can be consulted to see if their perceptions match the survey results.

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