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The Impact of Principals' Instructional Leadership on Students' Academic Motivation

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ABSTRACT

This study aimed to examine the effect of school principals' instructional leadership on students' academic motivation. The research was applied in terms of purpose and employed a descriptive-survey design with a correlational approach. The statistical population included all teachers working in public lower secondary schools in Shiraz during the 2023–2024 academic year (approximately 850 teachers). Using proportional stratified random sampling, 265 teachers were selected as the study sample.

Data were collected using the Hallinger and Murphy Instructional Leadership Questionnaire (30 items) and Vallerand's Academic Motivation Scale (AMS) (21 items). The content validity of both instruments was confirmed by experts (CVR > 0.62), while construct validity was established through confirmatory factor analysis. Reliability, assessed using Cronbach's alpha, was 0.89 for the instructional leadership questionnaire and 0.87 for the academic motivation scale. Data were analyzed using descriptive statistics, Pearson's correlation coefficient, multiple regression analysis, and structural equation modeling (SEM) with SPSS 26 and AMOS 24.

The results revealed a positive and statistically significant relationship between principals' instructional leadership and students' academic motivation. The dimensions of instructional leadership jointly explained 48% of the variance in academic motivation. Furthermore, SEM analysis demonstrated that instructional leadership had a significant positive effect on students' academic motivation ($\beta = 0.64$), and the proposed model showed satisfactory goodness-of-fit indices.

The findings suggest that principals' instructional leadership, through establishing a clear school mission, effectively managing instructional programs, and promoting a positive learning climate, plays a vital role in enhancing students' academic motivation. Therefore, strengthening principals' instructional leadership competencies can serve as an effective strategy for improving students' learning experiences and overall academic achievement.

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Introduction

In recent decades, educational systems have faced widespread challenges, including declining academic motivation among students, reduced engagement in learning, and growing educational inequalities. These challenges have heightened the necessity of focusing on school-related factors that influence students' performance and motivation. One of the most influential of these factors is the role of school principals as instructional leaders who, by fostering a supportive school environment, improving human relations, encouraging teachers, and strengthening learning interactions, can play a decisive role in enhancing student motivation (Leithwood & Sun, 2020).

Instructional leadership, as one of the dominant paradigms in school management, emphasizes guiding teaching–learning processes, providing professional support for teachers, and improving the quality of students' learning. Recent studies indicate that effective instructional leaders can directly and indirectly enhance students' academic motivation by creating a positive school climate, raising academic expectations, providing learning opportunities, and involving teachers in decision-making processes (Hallinger, 2022).

On the other hand, academic motivation—recognized as one of the most important predictors of educational success—plays a fundamental role in learning processes. Students with higher levels of intrinsic motivation demonstrate greater persistence, more active engagement in academic activities, and more desirable academic performance (Ryan & Deci, 2020). In this context, examining the contribution and impact of principals' instructional leadership styles on students' academic motivation has gained particular importance.

Existing evidence shows that many schools are confronted with declining academic motivation among students, indifference toward schoolwork, reduced engagement, and increased avoidance behaviors. Recent studies indicate that a substantial portion of these issues is associated with the quality of school management and the leadership style of principals. School principals, by directing instructional activities, supporting teachers, strengthening social interactions, and creating a positive learning environment, can serve as a determining factor in shaping students' academic motivation (Qadach et al., 2020).

Despite the importance of this issue, in many schools instructional management has been overshadowed by administrative management, and principals, instead of acting as instructional leaders, are predominantly occupied with routine operational tasks. This shift diminishes the principal's influence on learning processes and reduces their ability to foster motivation among students. Findings from recent domestic studies (Salehi et al., 2025; Shahrabi et al., 2020) also indicate that the absence of effective leadership in schools is one of the primary causes of the decline in academic motivation.

Accordingly, the central question of the present study is: What effect does principals' instructional leadership have on students' academic motivation, and which dimensions of instructional leadership possess the strongest predictive power for academic motivation? Addressing this question can provide valuable strategies for improving school management and enhancing the quality of learning.

Instructional leadership is a concept first introduced by Hallinger, emphasizing the principal's role in guiding and improving teaching and learning. Within Hallinger's theoretical framework (Hallinger, 2022), instructional leadership encompasses three core dimensions: establishing a clear educational mission, managing the instructional program, and creating a positive instructional climate. Each of these dimensions can influence students' attitudes, behaviors, and motivation.

According to Self-Determination Theory, academic motivation is strengthened when three basic psychological needs—autonomy, competence, and relatedness—are fulfilled in students (Konold et al, 2018). Effective instructional leaders, by fostering a supportive environment, enhancing positive interactions, and providing constructive feedback, help satisfy these needs, thereby enhancing academic motivation.

From the perspective of Expectancy–Value Theory, motivation increases when students believe their effort will lead to success and that such success is meaningful to them. School principals, by establishing clear

goals, supporting teachers, and ensuring a coherent school climate, can strengthen students' academic expectations and values (Schunk & DiBenedetto, 2021).

Recent international studies have shown that instructional leadership is one of the strongest factors influencing students' motivation and performance. The study by Leithwood and Sun (2020) demonstrated that principals who adopt instructional and collaborative leadership styles directly enhance students' academic motivation and sense of efficacy. Likewise, Hallinger (2022) emphasizes that instructional leaders, through professional support for teachers, play a key role in strengthening school culture and fostering students' enthusiasm for learning.

In another study, Goddard et al (2017) found that a school environment emphasizing participation, supportive relationships, and continuous feedback contributes to higher levels of intrinsic motivation among students. Furthermore, Qadach et al. (2020) reported that instructional leadership indirectly improves academic motivation by increasing teacher–student interactions.

In Iran, recent studies such as those by Yaghoubi et al (2025), Arjmand Navokhi (2025), and Mousavi (2021) have shown that principals' instructional leadership style has a significant impact on students' academic motivation and their engagement in learning activities.

In line with explaining the relationships among the key variables of the study and based on the relevant theoretical foundations, the following conceptual model is proposed. As illustrated, principals' instructional leadership is considered the independent variable and includes three dimensions: "defining a clear educational mission," "managing the instructional program," and "creating a positive school climate." These dimensions influence students' academic motivation, which—within the framework of Self-Determination Theory—is defined across three components: "autonomy," "competence," and "relatedness."

The conceptual model indicates that instructional leadership can enhance students' academic motivation by strengthening their basic psychological needs. Accordingly, the causal relationships between the dimensions of instructional leadership and the components of academic motivation have been used as the foundation for the study's hypotheses.

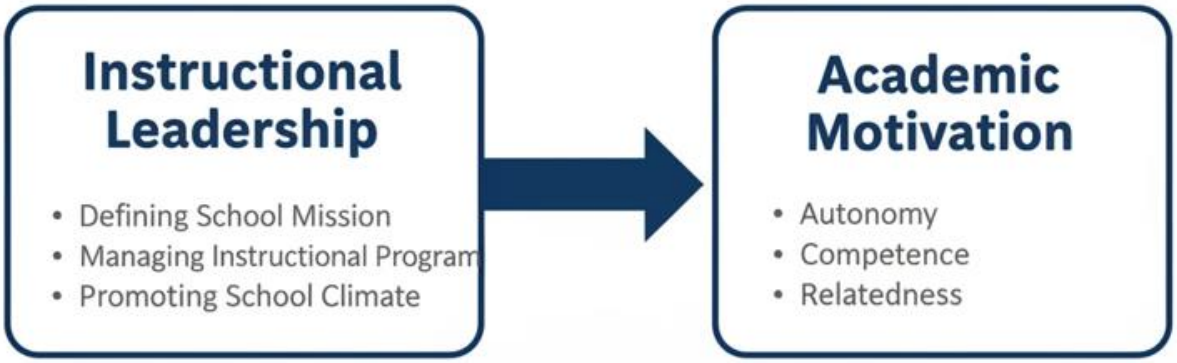

Figure 1. Conceptual Model of the Relationship Between Principals' Instructional Leadership and Students' Academic Motivation

Method

Sample and Sampling Method

The statistical population consisted of all teachers employed in public lower secondary schools in Shiraz during the 2023–2024 academic year. According to official data from the Fars Province Department of Education, the total number of teachers in these schools was approximately 850 individuals.

To determine the sample size, Cochran's formula was applied at a significance level of 0.05, yielding a required sample of approximately 265 individuals. A proportional stratified random sampling method was employed: schools were first classified by educational district, and the share of each stratum was determined proportionate to the number of teachers in that district. Participants were then selected randomly within each stratum

Tools Used

Hallinger and Murphy Instructional Leadership Questionnaire: Instructional leadership was assessed using the validated Hallinger and Murphy questionnaire, developed based on the instructional leadership model. This instrument encompasses three main dimensions: defining the school's educational mission, managing the instructional program, and creating a positive school climate. It contains 30 items rated on a five-point Likert scale ranging from "strongly disagree" to "strongly agree," and has demonstrated strong validity and reliability across numerous national and international studies.

Vallerand's Academic Motivation Scale (AMS): Students' academic motivation was measured using the adapted version of Vallerand's Academic Motivation Scale, aligned with the structure of Self-Determination Theory. This instrument assesses three components — autonomy, competence, and relatedness — across 21 items rated on a five-point Likert scale. Its sound psychometric properties have been confirmed in multiple domestic and international studies.

Procedure

The present study was conducted in several systematic stages. In the first step, following the development of the theoretical framework, the necessary permissions were obtained from the Fars Province Department of Education and the educational districts of Shiraz. In coordination with district officials, the list of public lower secondary schools was extracted and proportional stratified random sampling was carried out.

In the next stage, the measurement instruments were prepared. Content validity of both questionnaires was evaluated by six experts in educational management and educational psychology, and the Content Validity Ratio (CVR) for all items exceeded the critical value of 0.62. Construct validity was examined through Confirmatory Factor Analysis (CFA) in AMOS; the results indicated that the measurement models of both questionnaires demonstrated good fit, with NFI, CFI, and TLI all above 0.90 and RMSEA below 0.08. Reliability was assessed using Cronbach's alpha, yielding coefficients of 0.89 for the instructional leadership questionnaire and 0.87 for the academic motivation questionnaire, both reflecting desirable levels of reliability. Prior to the main administration, a pilot study was conducted with 30 teachers outside the main sample to ensure clarity of the items.

During the implementation phase, questionnaires were distributed to teachers in person in coordination with school principals. Participants were informed of the study's purpose, the confidentiality of their responses, and their right to withdraw at any time, and informed consent was obtained from all participants.

Following data collection, incomplete questionnaires were removed and the remaining data were entered into SPSS version 26. Descriptive statistics were first calculated and statistical assumptions were verified. Pearson correlation, multiple regression analysis, and Structural Equation Modeling (SEM) in AMOS version 24 were then employed to test the research hypotheses.

Result

To examine the status of the studied variables, descriptive indicators of instructional leadership and academic motivation were first reported. The descriptive results presented in Table (1) show that the overall mean score for principals' instructional leadership is 3.84, indicating a favorable level of instructional leadership in the schools under study. Among the dimensions of instructional leadership, "creating a positive school climate" has the highest mean (3.91), reflecting principals' emphasis on building positive human relationships, fostering a supportive environment, and promoting an active learning climate.

Furthermore, the overall mean score for students' academic motivation is reported as 3.79, suggesting a relatively desirable level of motivation among students. Among the components of academic motivation, "relatedness" has the highest mean (3.88), highlighting the importance of social interactions and a sense of belonging in the learning experience.

Table 1. Descriptive Statistics of the Research Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Defining Educational Mission	3.84	0.61	2.30	4.90
Managing the Instructional Program	3.76	0.58	2.10	4.85
Creating a Positive School Climate	3.91	0.55	2.40	4.95
Instructional Leadership (Total)	3.84	0.57	2.25	4.90
Autonomy	3.79	0.63	2.10	4.85
Competence	3.72	0.59	2.00	4.80
Relatedness	3.88	0.56	2.30	4.90
Academic Motivation (Total)	3.79	0.58	2.20	4.80

Overall, the descriptive results indicate that the indicators related to both variables are at a desirable level, and principals place greater emphasis on creating a positive school climate compared to other dimensions. Students' academic motivation was also assessed at a relatively high level, which may stem from the presence of a supportive environment and effective interaction between principals and teachers.

To test the research hypotheses, the relationships among variables were examined using Pearson correlation coefficients. According to Table (2), all dimensions of instructional leadership show positive and significant correlations with academic motivation and its components ($p < 0.01$). The strongest correlation is observed between the dimension of "creating a positive school climate" and academic motivation ($r = 0.58$). In addition, the overall correlation coefficient between instructional leadership and academic motivation was found to be 0.61. These results indicate that strengthening principals' instructional leadership behaviors leads to increased academic motivation among students.

Table 2. Pearson Correlation Coefficients Between Research Variables

Variable	Academic Motivation	Autonomy	Competence	Relatedness
Defining Educational Mission	0.46**	0.41**	0.38**	0.44**
Managing the Instructional Program	0.52**	0.47**	0.45**	0.49**
Creating a Positive School Climate	0.58**	0.53**	0.49**	0.56**
Instructional Leadership (Total)	0.61	0.55	0.51	0.58

$p < 0.01$

To determine the extent to which the dimensions of instructional leadership influence academic motivation, a multiple regression analysis was conducted. The results presented in Table (3) indicate that the three dimensions of instructional leadership collectively explain 48% of the variance in academic motivation ($R^2 = 0.48$, $F = 74.62$, $p < 0.001$). Among the predictor variables, "creating a positive school climate" has the strongest predictive power with a beta coefficient of 0.33, followed by "managing the instructional program" and "defining the educational mission." These findings demonstrate that a supportive and interactive school environment plays a greater role in enhancing students' motivation than other managerial dimensions.

Table 3. Results of Multiple Regression Analysis for Predicting Academic Motivation

Predictor Variable	Beta (β)	t-value	Significance Level (p)
Defining the Educational Mission	0.21	3.48	0.001
Managing the Instructional Program	0.27	4.12	0.000
Creating a Positive School Climate	0.33	4.89	0.000

$F = 74.62$ $p = 0.000$ $R^2 = 0.48$

Next, Structural Equation Modeling (SEM) was conducted to examine the causal relationships among the research variables. The model fit indices, including CFI, TLI, and NFI, were obtained as 0.93, 0.91, and 0.92, respectively—all exceeding the recommended threshold of 0.90. In addition, the RMSEA value was 0.061 and the χ^2/df ratio was 2.41, both of which fall within acceptable ranges.

The results of the direct path analysis indicated that principals' instructional leadership has a positive and significant effect on students' academic motivation ($\beta = 0.64$, $p < 0.001$). This finding suggests that instructional leadership behaviors—particularly those that enhance the psychological and social climate of the school—play a central role in increasing student motivation.

Table 4. Model Fit Indices and Main Structural Path of the Study

Index	Obtained Value	Recommended Value
CFI	0.93	> 0.90
TLI	0.91	> 0.90
NFI	0.92	> 0.90
RMSEA	0.061	< 0.08
χ^2/df	2.41	< 3

Instructional Leadership → Academic Motivation

$\beta = 0.64$ $p = 0.000$

The overall results indicate that the level of instructional leadership among school principals is at a desirable level and that this variable has a positive and significant effect on students' academic motivation. Furthermore, the dimension of "creating a positive school climate" was identified as the most important predictor of academic motivation. The conceptual model of the study also demonstrated an acceptable level of fit, and the theoretical relationships among the variables were well supported. Therefore, it can be concluded that strengthening instructional leadership and fostering a supportive learning environment by school principals play a fundamental role in enhancing students' motivation and improving their academic performance

Discussion & Conclusion

The findings of the present study revealed that principals' instructional leadership has a positive and significant effect on students' academic motivation, and that the various dimensions of this leadership particularly creating a positive school climate — play an important role in explaining students' motivational variations. This result can be interpreted within the frameworks of instructional leadership theory and Self-

Determination Theory (SDT). According to Hallinger's perspective, instructional leadership becomes effective when principals are able to define the school's educational direction, supervise instructional processes, and create a supportive environment for learning, thereby fostering students' academic motivation.

The correlation findings indicated that all dimensions of instructional leadership are positively and significantly related to academic motivation. Among these dimensions, creating a positive school climate showed the strongest correlation with academic motivation, suggesting that the emotional and social environment of the school is a key factor in shaping students' learning attitudes. When principals foster an atmosphere characterized by respect, support, and trust, students experience greater psychological security and a stronger sense of belonging, which in turn enhance their motivation to engage in learning activities.

The regression analysis results indicated that the dimensions of instructional leadership explained a substantial portion of the variance in students' academic motivation ($R^2 = 0.48$), highlighting that principals' leadership behaviors can directly influence the quality of the teaching–learning process. The structural equation modeling further confirmed that the conceptual model had a good fit and that instructional leadership exerted a direct and significant effect on academic motivation ($\beta = 0.64$). From the perspective of Self-Determination Theory, when the educational environment satisfies students' basic psychological needs — autonomy, competence, and relatedness — their intrinsic motivation to learn is strengthened, a pattern clearly supported by the findings of the present study.

The findings align with a substantial body of domestic and international research. Recent international studies (Hallinger, 2022; Schunk & DiBenedetto, 2021; Leithwood & Sun, 2020) have reported that instructional leadership has a direct and significant impact on students' motivation and learning performance. The finding that creating a positive school climate has the strongest effect on academic motivation is consistent with Brown (2023) and Kim (2024), who showed that the emotional climate of the school plays the most significant role in explaining students' intrinsic motivation. At the national level, studies by Arjmand Navokhi (2025), Yaghoubi et al. (2025), and Mousavi et al. (2021) have similarly emphasized the effective role of principals' instructional leadership in enhancing students' motivation and academic engagement.

What distinguishes the present study is its combined use of three analytical approaches — correlation analysis, regression analysis, and structural equation modeling — alongside its focus on multiple dimensions of motivation based on Self-Determination Theory, enabling a more precise analysis of the mechanisms through which instructional leadership influences academic motivation.

The present study is not without limitations. The restriction of the statistical population to public lower secondary schools in Shiraz limits the generalizability of the findings. The use of self-report instruments may also introduce common method bias. Future research is recommended to employ longitudinal and mixed-method designs and to examine mediating variables such as school climate, academic self-efficacy, or academic engagement to gain deeper insights into these mechanisms. Conducting similar studies across different educational levels and geographical regions can further enhance the generalizability of the findings.

Based on the findings, it is recommended that school principals strengthen instructional leadership practices and play a more active role in guiding teaching–learning processes. Organizing professional development workshops on instructional leadership, cultivating a culture of collaboration among teachers, and prioritizing a positive and supportive school climate can collectively enhance students' sense of belonging and academic motivation. Educational policymakers are also encouraged to devise mechanisms for evaluating and enhancing instructional leadership within the educational system, in order to improve the overall quality of learning and academic performance.

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