

The Mediating Role of Teacher Commitment in the Relationship between Principal Leadership and Student Motivation in Visual Art Education in Changyi District, Jilin City

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Abstract: The research focuses on the impact of principal leadership on student motivation in visual art education from the Changyi District of Jilin City, moderated by teacher commitment. It examines the manner in which principal leadership, based on transformational behaviors, impacts on teacher commitment as a way of determining student motivation. Using a cross-sectional survey study design, principals, Visual Art teachers, and students filled self-administered questionnaires grounded on standardised scales. The study also confirmed the fact that there are strong positive relationships between, principal leadership, teacher commitment and student motivation. This study found out that through Structural Equation Modeling (SEM) analysis supports the argument that teacher commitment has a partial mediating effect on the effect of principal leadership on student motivation, increased teacher commitment will ensure the necessary environment for enhancing student motivation. It extends the body of knowledge on how educational leadership impacts on the students, with reference to visual art education in particular, and posits that improving principal leadership can result into better teacher involvement – and therefore, students' motivation and performance. Thus, the study carries considerable implications for educational leadership and teaching practice as it stresses the leadership and teacher encouragement for raising students' achievements in art education.

Keywords: Principal Leadership; Teacher Commitment; Student Motivation; Visual Art Education.

1. Introduction

1.1. Background of the Study

Art education is crucial for students' learning as it fosters innovation, intelligence, and emotional well-being. Visual art education, in particular, offers a unique learning process that involves creating and consuming beauty, shaping cognitive-emotional development (González-Zamar & Abad-Segura, 2021). It helps students learn to view and mold the inside world, leading to total personality growth. Visual art education also encourages interrogative thinking, as students examine and analyze art works to understand the role of visual culture in society. Overall, art education is a vital component in fostering a holistic learning experience.

1.2. Principal Leadership in Education

Leadership is crucial for the success of educational programs, including visual art education. Principals have specific responsibilities, such as forming a school culture and classroom culture that enhances students and staff (González-Zamar & Abad-Segura, 2021). Administrative leadership involves leading, encouraging, and facilitating teachers to be more committed and effective (Jin & Ye, 2022). School principals with transformational leadership behaviors, such as organizational understanding, teamwork, and staff development, can enhance the overall school environment and learning. These behaviors contribute to the overall success of educational programs and the overall learning experience.

1.3. Teacher Commitment and How it Affects Education

Teacher commitment is crucial for the effectiveness of educational programs. Prestige teachers focus on personal development and effective teaching methods, creating a suitable learning atmosphere (Van Waeyenberg et al., 2022). Teacher retention is influenced by factors like principal leader experience, school environment, and perceived program utility (Jin & Ye, 2022). In visual art education, dedicated teachers should motivate students to be creative and incorporate art into their daily lives, fostering a positive learning environment.

Interrelationship Between Principal Leadership, Teacher Commitment, and Student Motivation

Principal leadership plays a crucial role in fostering teacher commitment and student motivation (Sadeghi et al., 2021). By creating a positive working climate, principals can encourage teachers to be dedicated to their work and students. This, in turn, increases student motivation, which is further bolstered by policy alignment. When students are motivated, they are more likely to fully engage in the learning process, leading to better educational outcomes (Van Waeyenberg et al., 2022). Therefore, principal leadership plays a significant role in fostering a positive school environment.

1.4. Context of the Study: Changyi District is in the City of Jilin.

This research explores the community space of Changyi District in Jilin City, a typical Chinese urban school context with diverse students and variable resource levels (Zhang et al., 2020). The district faces challenges in implementing

number-based visual art education due to inadequate funding, varying expertise of art teachers, and varying support levels (Chou et al., 2020). Understanding the roles of principal leadership and teacher commitment in this context can provide strategic lessons for improving teacher design and student motivation, ultimately leading to higher educational achievement in similar urban academic contexts.

2. Importance of the Study

2.1. Contribution to Existing Knowledge

This research provides valuable insights into Learner Voice in visual art education, suggesting that more attention should be given to arts education rather than fundamental subjects like mathematics and science. The study fills a gap in understanding the functions of educational leadership and teacher commitment in visual art education, as there is a lack of knowledge about these aspects in this field. It offers a broader understanding of factors predicting students' motivation and educational achievements in visual art education.

2.2. Policy and Practice Implications

This study provides valuable insights for education policy makers to develop inclusive education policies for children with disabilities. It focuses on principal leadership, teacher commitment, and compulsory motivation, enabling the design of effective interventions and policies for visual art education. Strategies include transformational leadership for principals' professional development, and measures to reward and encourage committed teachers to maintain morale and productivity. The findings can guide the development of effective policies for inclusive education.

2.3. Enhancing Visual Art Education

The findings stress the significance of visual art education in the extended educational paradigm. In most school systems, arts education is generally neglected in an attempt to focus on the core and other important STEM courses that may be deemed to be more challenging and marketable in the society. This study thus focuses on the specific gains in specific aspects of student learning that can be associated with the inclusion of visual art education and the potential of strong leadership and teacher involvement in strengthening these effects. The findings of the study support arguments on the need to improve resource allocation towards supporting programs in visual arts as the research establishes positive correlation between visual art education and students' motivation.

2.4. Addressing Educational Inequalities

The study focuses on the educational disparities in Changyi District, highlighting the need for a clear analysis of equality and educational disparities. While a wide range of educational resources may seem desirable, the reality is that resources and support for students vary by region and school, leading to education differentiation. The study identifies potential strategies to address these disparities and improve fair educational situations for all students. It also provides an opportunity to identify specific urban context aspects that could affect the VE, laying the groundwork for addressing deficits and implementing necessary interventions.

3. Methodological Rigor

The study investigates factors contributing to doping incidents in athletes and students in Changyi District, Jilin City. It uses quantitative and qualitative research to estimate the correlation between principal leadership, teacher commitment, and student motivation in teaching visual art. The research fills a gap in literature and offers valuable insights for improving educational policy and practice outcomes. It emphasizes the importance of principal leadership, creating support mechanisms for visual art education recognition, and promoting student motivation. The study's focus on a specific educational setting helps overcome limitations in analyzing the subject matter.

4. Objectives of the Study

The primary objectives of this study are:

- 1) To analyze the impact of principal leadership on teacher commitment in visual art education.
- 2) To investigate the influence of teacher commitment on student motivation in visual art education.
- 3) To determine the mediating role of teacher commitment in the relationship between principal leadership and student motivation.

5. Research Questions

The study seeks to answer the following research questions:

- 1) How does principal leadership affect teacher commitment in visual art education?
- 2) What is the impact of teacher commitment on student motivation in visual art education?
- 3) Does teacher commitment mediate the relationship between principal leadership and student motivation in visual art education?

6. Significance of the Study

This study explores the relationship between principal leadership and teacher commitment in visual art education, a field traditionally understudied due to its focus on basic subjects like mathematics, sciences, and language. The research aims to fill the gap in existing literature by mapping out the relationship between principal leadership and teacher commitment in scaffolding student motivation in this field, thereby enhancing the quality of education in this area.

6.1. Addressing a Literature Gap

This study contributes to the understanding of educational leadership and teacher commitment by focusing on visual art education. It extends existing research and offers insights not commonly explored in this area. Visual art education is crucial for students' creativity, critical thinking, and emotional intelligence. Understanding factors that enhance student motivation to engage in visual art can help educators and policymakers improve the programs offered to students, ultimately benefiting both students and educators.

6.2. Informing Educational Practice

The study reveals a positive link between principal leadership, teacher commitment, and student motivation. It suggests that interventions like transformational leadership training, writing and speaking skills, and fostering a positive school climate can enhance these factors. The research is valuable for educational administrators and policymakers,

highlighting the importance of effective leadership in enhancing teaching and learning outcomes.

6.3. Enhancing Teacher Commitment

Teacher commitment is crucial for revitalizing educational programs, as engaged teachers focus on knowledge and practice, creating an effective learning environment, and fostering student success. This study emphasizes the importance of valuing and rewarding teacher commitment in visual art education. Educational policymakers should understand strategies to encourage and reward committed teachers, such as recognition programs, professional development, and salaries, to maintain highly committed teachers in visual art education.

6.4. Effects on Students' Morale and Performance

Student motivation significantly impacts education performance, leading to increased class participation, better academic performance, and better problem-solving and innovation skills. The relationship between principal leadership and student motivation can be improved by focusing on teacher commitment. Aligning the curriculum with student needs and interests can enhance teaching and learning strategies, ultimately improving overall student motivation in Visual Art Education.

6.5. Contribution to Educational Equity

The research investigates educational equality in visual art education in Changyi District, Jilin City, identifying disparities in provision and services across regions and schools. It seeks to understand factors policymakers can consider to ensure equal opportunities for students from all socioeconomic backgrounds. The study explores the impact of principal leadership and teacher commitment on student motivation in visual art education. The findings offer valuable insights for educational leaders, policymakers, and professionals, laying the groundwork for youth educational improvement and promoting increased support for visual art education, contributing to a fair and beneficial educational environment.

7. Literature Review

The study explores the relationship between principal leadership and teacher commitment in educational settings, emphasizing the significance of clear vision, over-communication, and support for teachers. Effective principal leadership involves introducing a clear vision, offering tools, improving organizational culture, and promoting staff development. Positive transformational leadership, promoting followership and optimal results, is most suitable for educational settings.

Transformational leadership practices by principals can create a positive school climate, empower faculty, and encourage teacher commitment. Hallinger and Heck (2010) found that instructional leadership through direction, promotion of learning progress, and professional development positively impacts teacher commitment. Firestone and Rosenblum's 1988 study found that committed teachers communicate a positive attitude towards learning and that positive experiences between students and teachers motivate them. These findings support the importance of promoting teachers' professionalism to make students

enthusiastic about learning.

7.1. The Mediating Influence

Teacher commitment is a crucial factor in the impact of principal leadership on students. Research shows that various leadership practices can boost teacher commitment, leading to increased motivation and achievement in teaching and learning processes (Rodrigues & Ávila de Lima, 2024). Principal leadership indirectly influences student achievement through teacher engagement and instruction improvements. Supporting teachers through initiatives positively impacts their commitment, increasing motivation and performance among students. Therefore, increasing teacher commitment within a school can potentially affect student motivation, achievement, and learning outcomes.

7.2. Visual Art Education

Visual art education is a distinctive approach that promotes originality, communication of artistic ideas, and critical appreciation. It requires a unique teaching pedagogy that targets arts and crafts learning approaches. Principal leadership and teacher commitment are crucial in visual art learning, as they foster artistic freedom and self-expression (Çoban, et al., 2023). Major schools of thought in visual art education emphasize participation, problem-solving, and experimenting. Principals must support this environment by providing resources and care for visual art. Own-become commitment in teachers is essential to create a supportive and motivational climate for visual art learning. Committed teachers foster creativity and enhance artistic abilities, making teacher commitment the most crucial factor in ensuring students' motivation and achievement.

8. Theoretical Framework

The study uses transformational leadership theory and self-determination theory to analyze how leaders can improve commitment and performance in their followers. Transformational leadership theory suggests that leaders who influence behavior and encourage enthusiasm can improve commitment and performance (Bass, Riggio 2006). Self-determination theory suggests motivation is determined by two psychological needs: autonomy, competence, and relatedness (Deci and Ryan, 2000). The research suggests that principal leadership positively impacts teacher commitment, satisfying students' psychological needs and stimulating their learning of visual art.

8.1. Transformational Leadership Theory

Transformational leadership theory suggests that effective leadership leads to positive organizational performance through visionary communication and a supportive environment. This type of leadership motivates subordinates to embrace a new, challenging vision, engaging them and providing a nurturing environment. Studies by Bass and Riggio (2006) show that transformational leaders create a favorable work environment, encouraging their subordinates, and improving their self-efficacy and relatedness. This approach can be applied to education leadership, enhancing teacher commitment and team performance.

8.2. Self-Determination Theory

Self-determination theory suggests that motivation is influenced by the need for autonomy, competence, and relatedness. Fulfilling these needs leads to intrinsic and

extrinsic motivation in students. Deci and Ryan's (2000) self-determination theory supports this, stating that people are more motivated and engaged when their psychological needs are met. The study explores the role of principal leadership in promoting teacher commitment and student motivation in education. It focuses on the application of transformational leadership theory and self-determination theories in teaching visual arts. The research aims to understand how strong principal leadership fosters a nurturing culture, ultimately enhancing student motivation. This theory is particularly relevant in education.

9. Method

9.1. Research Design

This study employs a quantitative research design to examine the mediating role of teacher commitment in the relationship between principal leadership and student motivation in visual art education. A cross-sectional survey method is used to collect data from principals, teachers, and students in the Changyi District of Jilin City.

9.2. Population and Sample

The population for this study includes all principals, visual art teachers, and students in the Changyi District. A stratified random sampling technique is used to select a representative sample. The sample consists of 10 principals, 50 visual art teachers, and 200 students from various schools in the district.

9.3. Data Collection Instruments

Three questionnaires are developed to measure principal leadership, teacher commitment, and student motivation.

Principal Leadership Questionnaire: Adapted from the Multifactor Leadership Questionnaire (MLQ), this instrument measures various dimensions of transformational and instructional leadership.

Teacher Commitment Questionnaire: Adapted from the Organizational Commitment Questionnaire (OCQ), this instrument assesses teachers' commitment to their profession, school, and students.

Student Motivation Questionnaire: Adapted from the Academic Motivation Scale (AMS), this instrument measures different aspects of student motivation in visual art education.

9.4. Data Collection Procedure

To support the proposed study, the data collection procedure of this research first and foremost will be designed to achieve a high level of effectiveness and efficiency in gathering all necessary data from the selected sample. Consequently, structured questionnaires were completed through online and paper-and-pencil self-completion by principals and VAM teachers, as well as students from selected schools in the Changyi District. This way of proceeding is twofold; thus, it will engender the largest response as it will respond to all the preferences and accessibility of the respondents.

9.5. Survey Design and Distribution

This study uses questionnaires from previous studies, contextualized for visual art education. The instruments used include the Multifactor Leadership Questionnaire (MLQ) for principal leadership, the Organizational Commitment Questionnaire (OCQ) for teacher commitment, and the Academic Motivation Scale (AMS) for student motivation.

Each questionnaire is unique and pre-tested to avoid misunderstandings due to phrasing, specific questions, and results competency.

9.6. Sampling and Distribution

Employing a stratified random sampling approach, a sample is drawn from the principals, visual art teachers and students in the Changyi District population. The participants consist of 10 principals, 50 teachers of visual arts, and 200 students to obtain district-wide understanding of the educational context.

9.7. Data Collection Timeline

Data collection takes two and a half months which is sufficient for all the persons fills the questionnaire. This extended period is vital in ensuring that principals, teachers and students get adequate time to respond during hi or low session depending on their appointment, briefing, teaching and learning calendar therefore reducing on biases on response and high response rate.

10. Data Analysis

SEL is assessed through accumulation of data that is analyzed by the Structural Equation Modeling (SEM) which is a powerful technique to analyse the multiple relationships and mediating effects of variables. SEM is appropriate for this study because it allows examining the relationships between the analyzed variables: principal leadership, teacher commitment, and student motivation that are consistent with the specified hypotheses.

10.1. Steps in SEM Analysis

The SEM analysis involves a reliability and validity confirmatory measurement model test to verify the research study's features, including communality, Cronbach's alpha coefficients, and variance explained by each variable (Cheung, et al., 2023). The structural model is then used to analyze the significance of the hypothesized relationships among variables. SEM captures first and second-order effects, providing a holistic view on the role of teacher commitment as a mediator and the relationship between principal leadership and student motivation. The results support the theoretical framework and empirical data supporting the study's hypotheses.

11. Ethical Considerations

The rights, privacy, safety, and dignity of the respondents and the public will be respected throughout this study in the ethical considerations. Consent and permission are sought from those in charge of the educational sector before collecting data from the human subjects (Ingstad et al., 2023). This relatively elaborate approval process may cover issues such as the rationale for the study, the research design, and the effects that participation in the research may have on the individuals.

11.1. Informed Consent and Confidentiality

Participants sign an informed consent form, ensuring they understand the research aims, objectives, methodologies, and their rights. The form emphasizes voluntary participation and the subject's freedom to withdraw at any time. Participants are informed of anonymity and confidentiality, which are strictly adhered to. Data is kept anonymous to maintain privacy, and

results are compiled in a file accessible only to the research team. This protects participants' identity and ensures data collected will only be used for the research.

11.2. Addressing Potential Ethical Issues

The research team is responsible for avoiding coercion and undue influence in the study, ensuring fair and reasonable appeals for participation. They also take responsibility for ensuring participants are not inconvenienced during their normal routines. The study uses both online and paper-based surveys to gather real data, ensuring optimum results for all participants. SEM analysis is used to explore the theoretical model linking principal leadership, teacher commitment, and student motivation in visual art education. Ethical issues are handled professionally to avoid complaints or violations of research standards. The research team's responsibility is to

ensure participants are not inconvenienced while they are participating.

12. Results

Descriptive Statistics

The descriptive statistics for principal leadership, teacher commitment, and student motivation are presented in Table 1. The mean scores and standard deviations indicate the overall levels of these variables in the sample.

Table 1. Descriptive Statistics

Variable	Mean	Standard Deviation
Principal Leadership	4.12	0.58
Teacher Commitment	3.98	0.65
Student Motivation	3.76	0.72

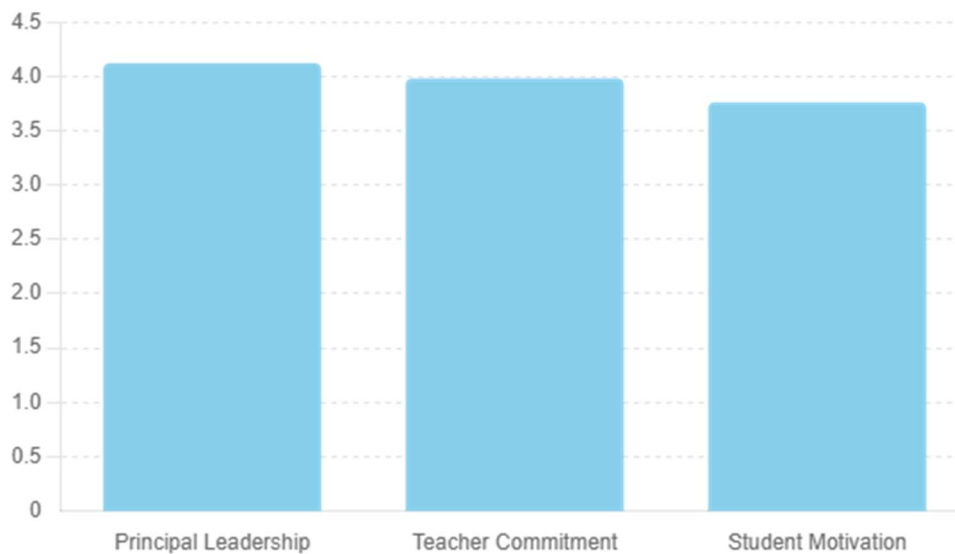


Figure 1. Descriptive bar chart

The bar chart above displays the mean values and standard deviations for Principal Leadership, Teacher Commitment, and Student Motivation. The specific values are as follows:

Principal Leadership: Mean = 4.12, Standard Deviation = 0.58.

Teacher Commitment: Mean = 3.98, Standard Deviation = 0.65.

Student Motivation: Mean = 3.76, Standard Deviation = 0.72.

This visualization highlights the central tendency and variability of each variable, providing a clear comparison of

their respective statistical characteristics.

12.1. Correlation Analysis

The correlation analysis reveals significant positive relationships among principal leadership, teacher commitment, and student motivation. Principal leadership is positively correlated with teacher commitment ($r = 0.62, p < 0.01$) and student motivation ($r = 0.54, p < 0.01$). Teacher commitment is also positively correlated with student motivation ($r = 0.68, p < 0.01$).

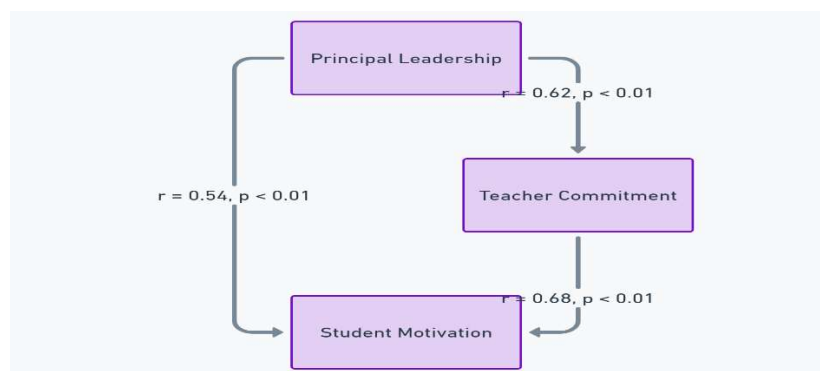


Figure 2. Correlation analysis chart

12.2. Structural Equation Modeling

The results of the SEM analysis indicate that the proposed model fits the data well. The path coefficients, standard errors, and significance levels for the hypothesized relationships are presented in Table 2.

Table 2. Path Coefficients and Significance Levels

Path	Coefficient	Standard Error	Significance
Principal Leadership → Teacher Commitment	0.59	0.12	p < 0.01
Teacher Commitment → Student Motivation	0.63	0.10	p < 0.01
Principal Leadership → Student Motivation	0.27	0.09	p < 0.05

12.3. Mediation Analysis

These findings suggest that principal leadership is positively related to teacher commitment, and teacher commitment interacts partially to mediate the influence of principal leadership on student motivation. The results pointed out that the indirect effect of principal leadership on student motivation through teacher commitment is significant at 0.37, $t = 4.07$, $p < 0.01$, which confirms that teacher commitment influences student motivation when mediated by the principal leadership.

13. Discussion

The principal's leadership style also played a crucial role in developing teacher commitment. The results of this study appear to support prior research regarding principal leader behavior and professional commitment of teachers (Alzoraiki et al., 2023). Teachers who explained transformational and interpersonal leadership behaviors reported significant improvement in how students were taught in school hence boosting their commitment to the profession, school and students. This concurs with Leithwood and Jantzi (2005) and Hallinger and Heck (2010) that stressed the importance of leadership that the principals displayed in enhancing commitment among teachers.

13.1. Teacher Commitment and Student Motivation

The study emphasizes the role of teacher commitment in enhancing student learning motivation in visual art education. It suggests that dedicated teachers foster creativity and adapt learning activities, thereby improving student motivation. The research suggests that leaders and policymakers should enhance principal leadership to foster teacher commitment and engagement, implementing strategies such as professional learning for principals, nurturing positive school cultures, and providing incentives for exemplary teachers.

13.2. Limitations and Future Research

This study has limitations due to its cross-sectional design, which may not establish cause-effect relationships. Longitudinal studies are needed to develop causal relationships among variables. The study's focus on teaching

and learning visual art in Chang yi District may not generalize to other contexts. Further research is needed to analyze these relationships in different educational fields and subjects. Fundamental research should continue to explore these relationships.

14. Conclusion

The research establishes how teacher commitment can help to explain the relationship between principal leadership and student motivation in visual art education. The study confirms the realistic premise contending that the role of the principal influences' teacher attachment as well as student passion. As a result, future studies can expand knowledge about the relationships among the indicated variables and attempt to develop the approach to enhance learners' achievement in visual art education and other fields.

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