Analysis of the Influence of Parental Attention, Teacher Pedagogical Interaction and Learning Facilities on the Motivation of Madrasah Tsanawiyah Students’ in South Bolaang Mongondow Regency, Indonesia

Abstract

This study aims to analyze the influence of parental attention, teacher pedagogical interaction, and learning facilities on student learning motivation at Madrasah Tsanawiyah (MTs) in South Bolaang Mongondow Regency. Using a quantitative approach, data were collected from 63 students through a Likert scale questionnaire that had been tested for validity and reliability. The results showed that the third variable, including parental attention, teacher pedagogical interaction, and learning facilities, partially and simultaneously significantly influenced student learning motivation. These results strengthen the Self-Determination Theory approach, which states that adequate external support can meet students' basic psychological needs and increase intrinsic motivation. These findings emphasize the importance of synergy between the roles of parents, teachers, and school institutions in creating a learning ecosystem that supports student learning motivation. This study recommends the need for community-based education policies and sectoral collaboration to strengthen student learning motivation sustainably, especially in disadvantaged areas.

***Keywords****: Learning motivation, parental attention, teacher pedagogical communication, learning facilities, student motivation.*

**Introduction**

According to Sardiman (2010), learning motivation is characterized by perseverance, resilience in the face of difficulties, and a drive to explore and complete learning tasks. Educational psychology theory views motivation as the primary determinant of learning success in individual and institutional contexts (Schunk et al., 2014). This motivation is generally divided into two types: intrinsic, which is an internal drive that arises from the interest and curiosity of students, and extrinsic, which arises from social and environmental influences, such as parental support, rewards from teachers, or available learning facilities (Ryan & Deci, 2000).

In the local context, education in rural areas such as South Bolaang Mongondow Regency faces significant challenges regarding the sustainability and quality of student learning motivation. The author's initial observations at several Madrasah Tsanawiyah (MTs) in this region show decreased learning motivation, as indicated by students' low enthusiasm for attending lessons, non-completion of homework, and high absenteeism without clear reasons. Quantitatively, only 25% of students demonstrated intrinsic motivation, while 40% were highly dependent on extrinsic motivation, and 35% exhibited motivation or a complete lack of learning motivation.

This phenomenon indicates that support from the external environment significantly influences the construction of students’ learning motivation. In this context, three key actors believed to play a crucial role are parents, teachers, and the school institution through the provision of learning resources. All three contribute to fulfilling students’ basic psychological needs, as theorized in Self-Determination Theory (SDT) by Deci & Ryan (1985), namely competence, social connectedness, and autonomy. The fulfillment of these three needs forms the foundation for the emergence of healthy and sustainable learning motivation. Within the formal education framework, these three aspects are significantly influenced by parental attention, pedagogical interactions with teachers, and the availability of learning resources (Niemiec & Ryan, 2009).

Parental attention, as the central pillar in the microenvironment of students, plays an important role in supporting children’s academic development. Research shows that supportive parental involvement, such as providing a conducive learning space, establishing a learning routine at home, and giving positive feedback, positively correlates with students’ intrinsic motivation (Fan & Chen, 2001). However, in communities with high economic pressures, parental involvement tends to be reduced due to work demands that limit time and attention to the educational process. This is consistent with the findings of Hoover-Dempsey et al. (2005), who emphasized that perceptions of the affordability of parental involvement are a significant barrier to the effectiveness of their support for children’s learning.

In addition to family support, the quality of pedagogical interactions between teachers and students is a key factor in building motivating learning experiences. These interactions involve the delivery of subject matter and reflect affective dimensions such as empathy, appreciation, and the teacher’s ability to create a safe and inclusive learning environment. A study by Wentzel (1997) shows that students‘ perceptions of emotional and academic support from teachers are significantly correlated with increased learning motivation and academic performance. Teachers who can apply autonomy-based and participatory learning approaches have also been proven more successful in stimulating students’ intrinsic motivation (Reeve, 2006).

On the other hand, the availability of learning facilities is a structural dimension that directly influences students’ learning experiences. Facilities such as adequate classrooms, technological devices, visual learning media, and access to digital learning resources are important prerequisites in facilitating active and participatory learning. Research by Tella (2007), Jariyah (2023), and Farhana *et al*. (2024) show that limited educational facilities significantly hinder the development of students’ learning motivation, especially in the context of primary and secondary education in developing regions. In many MTs in the Bolaang Mongondow Selatan region, educational infrastructure limitations are still prevalent, such as school libraries, insufficient teaching aids, and limited access to information technology.

Previous studies have demonstrated that parental attention (Mulyawan *et al*., 2022), teacher pedagogical communication (Mulyani, 2023), and the use of technology or learning tools in general contribute to increased student motivation (Alegre, 2023). Although these three variables have been examined in previous studies, most research has analyzed them separately and in more urban contexts with better infrastructure (Epstein, 2001; Fan & Williams, 2010). In addition, these studies tend to be conducted in urban areas with relatively better educational infrastructure, such as laboratories, libraries, and internet access. Thus, there is still a gap in the literature exploring the combined influence of parental attention, teacher-pedagogical interaction, and learning facilities on student learning motivation, particularly in the context of madrasah education in rural and underdeveloped areas (Hoechner, 2020). Furthermore, few studies use Self-Determination Theory as the primary lens in analyzing the relationship between these three external factors and the construction of student motivation in a limited socio-economic environment (Deci & Ryan, 2012).

This study offers novelty in two main aspects. First, the approach is integrative by testing the simultaneous influence of the three variables on student learning motivation. Second, this study adopts the Self-Determination Theory framework into the local context of madrasah education in underdeveloped areas, which has not been widely studied. This approach allows for identifying the dynamics of student learning motivation from the perspective of basic psychological needs influenced by the social and institutional environment.

This study aims to examine student learning motivation influenced by parental support and pedagogical interactions between teachers and learning facilities. Thus, the results of this study are expected to provide strategic contributions to the development of community-based education policies and cross-stakeholder participation in sustainably improving student learning motivation.

**Research Methodology:**

This research was conducted in Madrasah Tsanawiyah (MTs) in the South Bolaang Mongondow district for 10 months (June 2024 to March 2025). The study employed a quantitative approach using multiple linear regression analysis to examine the causal relationship between the independent variables: parental attention (X₁), pedagogical communication of teachers (X₂), learning facilities (X₃), and student learning motivation (Y). The study population consisted of 200 seventh-grade students from four public MTs, with a sample selected using simple random sampling based on the Slovin formula:

n = N / (1 + Ne²)

N = 200, e = 0.10, resulting in n = 67 respondents (Sugiyono, 2018).

The main instruments were a Likert scale questionnaire (1–5), observation, and documentation. Item validity was tested using Pearson's Product Moment correlation: rxy = (NΣXY - ΣXΣY) / √[(NΣX² - (ΣX)²)(NΣY² - (ΣY)²)] (Sugiyono, 2015), and reliability was tested using Cronbach's Alpha coefficient: α = (k / (k - 1)) \* (1 - Σσ²\_i / σ²\_t)

with k number of items, σ²\_i item variance, and σ²\_t total variance (Ghozali, 2011). Normality was tested using the Chi-Square test, using the formula:

χ² = Σ((O\_i - E\_i)² / E\_i)

In hypothesis testing, two approaches are used: simultaneous testing (F-test) and partial testing (t-test). The F-test is used to determine whether the three independent variables together have a significant effect on learning motivation:

F = (R² / k) / ((1 - R²) / (n - k - 1))

R² is the coefficient of determination, k is the number of independent variables, and n is the number of samples (Priyanto, 2008). Meanwhile, the t-test is used to determine the effect of each independent variable individually on the dependent variable: t = b\_i / SE(b\_i)

where b\_i is the regression coefficient and SE(b\_i) is the standard error of the coefficient (Ghozali, 2011). The hypothesis testing decision is determined based on the significance of the p-value, i.e., if p < 0.05, then the alternative hypothesis (H₁) is accepted. All data processing and analysis were performed using SPSS version 2025 software.

**Results and Discussion**

**Results**

Table 1: Results of partial influence analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variables | Coefficient Regression (β) | t Account | t Table  (α=0.05; degree of freedom =63) | Significant |
| Parental attention | 0.195 | 2.486 | 1.669 | Significant |
| Communication of teacher | 0.26 | 4.267 | 1.669 | Significant |
| Study facilities | 0.358 | 2.884 | 1.669 | Significant |

The partial linear regression analysis results indicated that each independent variable significantly affects students’ learning motivation. The parental attention variable has a regression coefficient of 0.195 and a t-value of 2.486, greater than the t-table value of 1.669 (α = 0.05; df = 63), thus indicating a statistically significant effect. This indicates that the higher the parental attention, the higher the students‘ learning motivation. Furthermore, the teacher pedagogical communication variable has a more substantial influence, as indicated by a regression coefficient of 0.260 and a t-value of 4.267, which also exceeds the t-table value. This means that an increase in the effectiveness of teacher pedagogical communication in the learning process significantly contributes to an increase in students’ learning motivation. The learning facilities variable shows the most significant partial influence, with a regression coefficient of 0.358 and a t-value of 2.884 > t-table. This finding indicates that the availability and quality of learning facilities at school play a crucial role in supporting students’ enthusiasm and motivation.

Table 2: Results of the simultaneous effect analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Model | F of account | F-table (α=0.05; degree of freedom =63) | Significant | Adjusted R² |
| Ŷ = 12,431 + 0,195X₁ + 0,260X₂ + 0,358X₃ | 36.779 | 2.52 | Significant | 0.619 |

Simultaneous multiple linear regression tests indicate that the three independent variables—parental attention, teacher pedagogical communication, and learning facilities—together significantly affect student motivation. The calculated F-value of 36.779 is greater than the table F-value of 2.520, and the significance value of 0.000 is less than α = 0.05, indicating that the regression model used is statistically valid. The regression model equation obtained is as follows.

Ŷ = 12,431 + 0,195X₁ + 0,260X₂ + 0,358X₃

The coefficient of determination (Adjusted R²) value of 0.619 indicates that 61.9% of the variation in student learning motivation can be explained by combining the three independent variables. In comparison, other factors outside the model influence the remaining 38.1%.

**Discussion**

The influence of parental attention on learning motivation. Based on the results of simple linear regression analysis, parental attention has a positive and significant influence on the learning motivation of students in MTs in the South Bolaang Mongondow Regency. The regression coefficient is 0.195, and the t-value is 2.486, which exceeds the t-table value (1.669) at a significance level of α = 0.05, indicating that parental attention is an important determinant in improving students’ learning motivation.

This finding aligns with the social motivation theory proposed by Santrock (2011), which emphasizes that parental involvement in children’s education positively impacts children’s intrinsic motivation. In Islamic education, parental involvement is not limited to academic assistance but also includes the development of values and spirituality that support students’ academic success.

A study by Fan and Chen (2001) also shows that parental involvement is positively correlated with academic achievement, with learning motivation being an important mediating variable in this relationship. Therefore, family-based interventions in education are crucial in improving the quality of learning at the secondary level.

The Influence of Teacher pedagogical communication on Learning Motivation. The results of simple linear regression show that teacher pedagogical communication has a regression coefficient of 0.260 with a t-value of 4.267 > t-table (1.669), which is statistically significant at α = 0.05. Effective teacher pedagogical communication is one of the essential factors influencing student engagement and creating a supportive learning environment.

Devito (2015) explains that interpersonal communication between teachers and students must be transactional, empathetic, and contextual to build effective relationships that impact learning motivation. In this case, teachers act as facilitators and inspirers in the educational process.

Research conducted by Pianata *et al.* (2012) confirms that the quality of teacher-student interaction directly impacts student academic engagement. Supportive and responsive relationships enhance students’ sense of belonging to the school and strengthen their motivation to learn.

The Influence of Learning Facilities on Learning Motivation. Regression analysis shows that learning facilities contribute the most to learning motivation, with a regression coefficient of 0.358 and a t-value of 2.884 > t-table (1.669). This means that the availability and quality of learning facilities such as classrooms, libraries, and multimedia resources significantly enhance students’ learning motivation. Maslow’s hierarchy of needs theory explains that safety and comfort in the learning environment are part of the basic needs that must be met for individuals to develop optimally. Good facilities create a conducive learning environment and support intellectual exploration (Timashinova & Anokhina, 2024).

Meanwhile, empirical studies by Earthman (2004) concluded that physical school conditions contribute directly to student academic performance through motivation. Schools with adequate facilities show higher levels of motivation and achievement than schools with limited infrastructure.

The Influence of Parental Attention, Teacher pedagogical communication, and Learning Facilities on Learning Motivation (Simultaneous) Multiple linear regression revealed that the three independent variables, namely parental attention, teacher pedagogical communication, and learning facilities, simultaneously positively and significantly influenced learning motivation. The F-test results showed an F-value of 36.779 > F-table (2.520), with significance p < 0.05. The resulting regression equation is as follows. This study strengthens the findings of Gonzales et al. (2005) and Fan et al. (2012) that parental involvement is very important in facilitating the growth of students' general academic and intrinsic motivation.

Y = 12,431 + 0,195X1 + 0,260X2 + 0,358X3

In addition, the adjusted coefficient of determination (Adjusted R²) of 0.619 indicates that the three variables can explain 61.9% of the variation in student learning motivation. At the same time, other factors outside the model influence the rest. Bronfenbrenner’s ecological system concept can be used to explain that the interaction between family, school, and physical environment forms an integral context in the development of children’s learning motivation. In other words, parental attention (microsystem), teacher pedagogical communication (mesosystem), and school facilities (ecosystem) simultaneously create positive synergy toward learning motivation (Wang & Oh, 2024).

Research by Rahmawati et al. (2021) shows that these three factors have a significant multivariate relationship with the motivation variable, especially in the context of community-based schools. Collaborative efforts involving schools, parents, and local governments in providing learning facilities are crucial for creating a sustainable educational ecosystem.

**Conclusion**

This empirical study demonstrates that parental attention, teacher pedagogical communication, and learning facilities positively and significantly influence the learning motivation of Madrasah Tsanawiyah (MTs) students in South Bolaang Mongondow Regency, Indonesia. These findings confirm that external factors originating from the family environment, school institutions, and learning infrastructure play complementary roles in shaping students' motivational dynamics.

Partially, parental attention has been proven to increase student learning engagement through emotional support, academic control, and creating a supportive learning environment at home. Effective teacher pedagogical communication, characterized by openness, empathy, and the ability to manage learning interactions, contributes to building a conducive classroom environment for developing intrinsic motivation. Meanwhile, the availability and quality of learning facilities significantly facilitate access to learning resources and meaningful learning experiences, which ultimately encourage active student participation in the learning process.

Simultaneously, these three variables contribute 61.9% to the variation in student learning motivation. This indicates the importance of a collaborative approach between parents, teachers, and education facility providers in developing strategies to improve learning motivation. Thus, the practical implications of these findings emphasize the need for integrated school- and community-based interventions to support the strengthening of student learning motivation sustainably.

Disclaimer (Artificial intelligence)

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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