

THE INFLUENCE OF PARENTAL PARENTING PATTERNS AND LEARNING STYLES ON STUDENTS' PAI LEARNING OUTCOMES CLASS IV MI MADANI ALAUDDIN GOWA REGENCY

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Abstract

This study aims to analyze the influence of parenting patterns and learning styles on the learning outcomes of Islamic Religious Education (PAI) of fourth-grade students at MI Madani Alauddin, Gowa Regency. This type of research is a quantitative non-experimental study with an ex post facto approach. The population in this study were all fourth-grade students totaling 40 people, with a research sample of 20 people taken using a purposive sampling technique. The instruments used included a questionnaire with a Likert scale for parenting patterns and learning styles, and documentation of UAS scores for learning outcomes. The results of the descriptive analysis showed that parenting patterns, learning styles, and student learning outcomes were generally in the moderate category. Partially, the results of the regression test showed that parenting patterns had a negative influence on learning outcomes, while learning styles had a positive influence in the same direction. Simultaneously, multiple linear regression analysis produced a model hat $\{Y\} = 104.325 - 0.401 X_1 + 0.207 X_2$ with an R^2 value of 0.750. This indicates that variations in parenting patterns and learning styles are able to predict student learning outcomes by 75%, while the remainder is influenced by other factors outside the research.

Keywords: Parenting Patterns, Learning Styles, Learning Outcomes, Islamic Religious Education.

Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh pola asuh orang tua dan gaya belajar terhadap hasil belajar Pendidikan Agama Islam (PAI) peserta didik kelas IV di MI Madani Alauddin Kabupaten Gowa. Jenis penelitian ini adalah kuantitatif non-eksperimen dengan pendekatan ex post facto. Populasi dalam penelitian ini adalah seluruh siswa kelas IV yang berjumlah 40 orang, dengan sampel penelitian sebanyak 20 orang yang diambil menggunakan teknik purposive sampling. Instrumen yang digunakan meliputi angket dengan skala Likert untuk variabel pola asuh dan gaya belajar, serta dokumentasi nilai UAS untuk variabel hasil belajar. Hasil analisis deskriptif menunjukkan bahwa pola asuh orang tua, gaya belajar, dan hasil belajar peserta didik secara umum berada pada kategori sedang. Secara parsial, hasil uji regresi menunjukkan bahwa pola asuh orang tua memiliki pengaruh negatif terhadap hasil belajar; sementara gaya belajar memiliki pengaruh positif yang searah. Secara simultan, analisis regresi linear berganda menghasilkan model hat $\{Y\} = 104,325 - 0,401 X_1 + 0,207 X_2$ dengan nilai R^2 sebesar 0,750. Hal ini mengindikasikan bahwa variasi pola asuh orang tua dan gaya belajar mampu memprediksi hasil belajar peserta didik sebesar 75%, sedangkan sisanya dipengaruhi oleh faktor lain di luar penelitian.

Kata Kunci: Pola Asuh Orang Tua, Gaya Belajar, Hasil Belajar, Pendidikan Agama Islam.



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INTRODUCTION

At the elementary school level, education emphasizes not only mastery of subject matter but also the holistic development of children's potential, including cognitive, affective, and psychomotor aspects. Educational success at this stage will lay a strong foundation for children's development at subsequent levels.¹ In the educational process, the environment plays a crucial role, and the family is a child's first and foremost environment. From the very beginning, the family serves as a place where children learn the values, norms, and behavioral patterns that shape the foundation of their personality.² Talcott Parsons described the family as the primary agent of socialization, playing a role in maintaining cultural patterns, values, and shaping children's behavior. Therefore, parenting styles are a crucial instrument in guiding children to develop into individuals with character and strong learning motivation.

From an Islamic perspective, parents also bear a significant responsibility for their children's education. This is emphasized in the Quran, particularly in Surah An-Nisa, verse 9.

وَلْيَخْشَ الَّذِينَ لَوْ تَرَكَوْا مِنْ خَلْفِهِمْ ذُرِّيَّةً ضِعْفًا خَافُوا عَلَيْهِمْ فَلْيَتَّقُوا اللَّهَ وَلْيَقُولُوا قَوْلًا سَدِيدًا

Translation:

Let them be afraid of those who should (die) leave behind them, weak offspring (whom) they fear. So, fear Allah and speak with the right words (in terms of protecting the rights of your descendants).QS. An-Nisa Verse 9.³

QS. An-Nisa verse 9 contains an important message about the responsibility of parents in educating their children so that they do not become a weak generation, whether physically, morally, spiritually, or intellectually. Therefore, parents are required to fear Allah by educating their children properly, providing good examples, and equipping them with knowledge and noble morals. This verse also commands parents to speak with correct language, namely honest, gentle, and constructive communication. This is closely related to the parenting style applied in the family, because through a loving approach and good communication, children will grow with a positive learning style. Thus, this verse emphasizes that parenting styles have a vital role in shaping children's character and learning habits, which will determine their future.⁴

¹ Maskur, *Dampak Pergantian Kurikulum Pendidikan Terhadap Peserta Didik Sekolah Dasar*, 2023, 190–203.

² Arvini Yorianda et al., “Pengaruh Pola Asuh Orang Tua Dan Gaya Belajar Terhadap Prestasi Belajar Siswa Pada Mata Pelajaran Pendidikan Agama Islam,” *Murabby : Jurnal Pendidikan Islam* 3, no. 2 (2020): 131–40, <https://doi.org/10.15548/mrb.v3i2.1739>.

³ Kementerian Agama RI, *Al-Quran Dan Terjemahannya* (Sygma Examedia Arkanleema, 2019).

⁴ Yayat Suharyat and Siti Asiah, “Metodologi Tafsir Al-Mishbah,” *Jurnal Pendidikan Indonesia : Teori, Penelitian, Dan Inovasi* 2, no. 5 (2022), <https://doi.org/10.59818/jpi.v2i5.289>.

Parenting styles are ways parents educate, guide, and treat children in everyday life. These parenting styles not only influence children's behavior and emotions but also shape their habits and motivation to learn. Experts divide parenting styles into four: authoritative (democratic), authoritarian, permissive, and neglectful or uninvolved. Each style has a different impact. Authoritative parenting styles typically support the growth of self-confidence, independence, and motivation to learn. Conversely, authoritarian parenting styles emphasize obedience and discipline without room for discussion, leading children to become stressed and lack self-confidence. Permissive parenting styles provide a high degree of freedom but minimal control, so children often grow up to be irresponsible individuals. Neglectful parenting styles are the riskiest, as parents are not emotionally or physically involved, leaving children vulnerable to behavioral problems and learning difficulties.⁵

The learning style that is formed is directly related to learning outcomes. Learning outcomes are the achievements of students after going through the learning process, encompassing cognitive (knowledge), affective (attitude), and psychomotor (skills) aspects. Learning success is measured not only by test scores, but also by the ability to understand the material, demonstrate a positive attitude, and apply knowledge in everyday life. A mismatch between a child's learning style and the learning method often causes poor learning outcomes, as children feel bored, have difficulty understanding the material, or are inconsistent in completing assignments. Therefore, understanding the relationship between parenting styles, learning styles, and learning outcomes is crucial for a child's educational success.⁶

In the context of primary education, particularly in Madrasah Ibtidaiyah (Islamic Elementary School), Islamic Religious Education (PAI) plays a strategic role. PAI focuses not only on mastering the material but also on internalizing Islamic values and developing noble character. The success of PAI learning is greatly influenced by parental involvement at home, through guidance, role models, and supervision. MI Madani Alauddin, located in Gowa Regency, is a private elementary school with a vision of developing religious, intelligent, and character-based students. Its students come from diverse family backgrounds, both in terms of economic status and understanding of the importance of parents' role in supporting their children's learning. Initial observations in fourth grade showed striking variations in PAI learning outcomes. Some students were able to understand the material well, actively engaged in discussions, and were independent in completing assignments. However, others still struggled to understand the lessons,

⁵ Ricky Alfredo Silaban, *Gaya Belajar Peserta Didik* (n.d.).

⁶ Anita Sari et al., "Analisis Gaya Belajar Peserta Didik Untuk Mengaplikasikan Pembelajaran Berdiferensiasi Kelas 1 SD Supriyadi 02 Semarang," *Innovative: Journal Of Social Science Research* 4, no. 2 (2024): 2778–88.

were passive, and completely dependent on the teacher. These differences indicate the influence of parenting styles and learning styles on learning outcomes.

This phenomenon underscores the importance of parental involvement in their children's learning process. Children accustomed to receiving attention and emotional support at home tend to be more confident and enthusiastic, while those lacking support are more likely to be passive and less responsive. This situation has become even more evident during the pandemic, when parents' role as learning facilitators is crucial to the success of distance learning.

Based on this background, it is important to conduct research on "The Influence of Parenting Patterns and Learning Styles on Islamic Religious Education Learning Outcomes of Grade IV Students of MI Madani Alauddin, Gowa Regency". This research is expected to provide a deeper understanding of the relationship between parenting patterns and learning styles and learning outcomes, as well as serve as evaluation material for schools and parents to create a more effective learning environment and support optimal child development.

LITERATURE REVIEW

Parenting Patterns

Parenting patterns are interactions that occur between parents and children, parents provide encouragement to children to change behavior, knowledge and good values that are considered appropriate for parents so that children can grow into independent, developed, and success-oriented children. According to Casmini, parenting patterns are the way parents guide children to live independently, educate, discipline and protect children in achieving the process of maturity until the formation of expected norms can be achieved.

Meanwhile, according to Santrock, parenting means the way or effort of parents or fathers and mothers to care for their children so that their children become good people and have high intelligence. Providing good parenting will instill good emotions in children, because good parenting can influence good growth and development in children. From the opinions of several figures, it can be concluded that parenting is all interactions that occur between parents and their children, with the aim of guiding their children towards maturity through changes in attitudes, knowledge and values that are considered good by parents with the aim of making children independent, directed, grow and develop healthily and optimally.⁷

⁷ Popy Puspita Sari et al., "Terhadap Perkembangan Emosional Anak Usia Dini," *Jurnal PAUD Agapedia* 4, no. 1 (2020): 157–70.

Parenting styles are the methods or approaches parents employ to educate and guide their children. Generally, there are four types of parenting styles: authoritarian, permissive, democratic (authoritative), and neglectful/uninvolved.⁸

1. Authoritarian Parenting Style

Authoritarian parenting is characterized by strict control and high demands from parents on their children. Parents who adopt this parenting style tend to restrict children's freedom of expression and often use punishment as a means of discipline. Communication is one-way, from parent to child, and expressions of affection are very limited. As a result, children often grow up to be obedient but lack confidence, anxious, and reluctant to take initiative for fear of making mistakes.

2. Permissive Parenting Style

Permissive parenting is the opposite of authoritarian, where parents give their children complete freedom without clear boundaries or rules. They tend to pamper their children, avoid conflict, and provide little firm direction. Despite open communication with their children, this loose control often leads to children who lack discipline, are selfish, and have difficulty controlling themselves or following rules.

3. Democratic (authoritative) Parenting Style

Democratic (authoritative) parenting is the most balanced and ideal parenting style, combining discipline with affection and allowing children to express their opinions. Parents who adopt this style establish clear and consistent rules, but are also open to discussion and respect their children's views.⁹

4. Neglectful/uninvolved Parenting

Neglectful/uninvolved parenting is a parenting style characterized by a lack of parental attention and involvement with children. In this pattern, parents don't set rules, communicate infrequently, and show minimal affection.

⁸ Faisal Asmen Asmen et al., "Pola Asuh Orang Tua Terhadap Pendidikan Anak," *TANJAK : Journal of Education and Teaching* 5, no. 1 (2024): 22–30, <https://doi.org/10.35961/tanjak.v5i01.1328>.

⁹ Vani Kurniasari et al., "Pola Asuh Orangtua Dalam Membentuk Karakter Religiusitas Anak," *Mozaic : Islam Nusantara* 8, no. 1 (2022): 1–24, <https://doi.org/10.47776/mozaic.v8i1.281>.

According to Hurlock in Chabib Thoha, there are several factors that can influence the type of parenting pattern, including:¹⁰

1. Parental education

Parental education is a crucial factor influencing parenting styles and a child's learning success. Parents with higher education generally have a better understanding of children's developmental stages, emotional needs, and effective parenting strategies.

2. Socioeconomic status

Parents' socioeconomic status significantly influences the parenting styles implemented within the family. Parents from lower socioeconomic groups generally face greater life pressures, such as financial constraints, demanding jobs, and less supportive living environments. These conditions often impact the way they raise their children.

3. Child's age

A child's age is a crucial factor influencing parenting styles. Each stage of a child's development presents different emotional, cognitive, and social needs, requiring a tailored parenting approach. For example, preschoolers are in a golden age of development, where parental attention, affection, and direct guidance are essential. Children at this stage are not yet able to optimally regulate themselves, so a warm, responsive, and engaging parenting style is crucial for fostering a sense of security, self-confidence, and basic social and emotional skills.¹¹

4. Experience

Parents' life experiences, particularly their childhood experiences and the parenting styles they received, significantly influence how they raise their children. Each individual carries a personal emotional footprint, values, and ways of thinking from the environment in which they were raised. Parents who grew up in families characterized by violence, neglect, or a lack of affection are at high risk of reproducing these negative parenting patterns in their children.¹²

The relationship between parenting styles and learning outcomes is a crucial aspect of education, particularly in understanding the factors that influence students' academic success. Parenting styles reflect how parents educate, guide, and accompany their children in their

¹⁰ Ayu Sulitiya Ningsih, "Pengaruh Pola Asuh Orang Tua Dan Lingkungan Terhadap Kemandirian Anak Pada Siswa Kelas V Di Sd Negeri 58/Ix Tempino," *Jurnal Pendidikan Tematik Dikdas* 7, no. 1 (2022): 60–74, <https://doi.org/10.22437/jptd.v7i1.19535>.

¹¹ Fredi Imanuel Malaisari et al., "Tanggung Jawab Orang Tua Dalam Memperhatikan Terhadap Minat Belajar Anak," *Jurnal Excelsior Pendidikan* 5, no. 1 (2024): 25–37, <https://doi.org/10.51730/jep.v5i1.57>.

¹² Suci Ati Cahya and Mhd. Fuad Zaini Siregar, "Eksplorasi Peran Lingkungan Sosial Dan Pola Asuh Orang Tua Dalam Pembentukan Karakter Anak Usia Dini," *CAHAYA: Journal of Research on Science Education* 2, no. 1 (2024): 26–36, <https://doi.org/10.70115/cahaya.v2i1.145>.

daily lives, including supporting their learning process. When parents implement positive parenting styles, such as democratic parenting, which combines control and affection, children tend to grow into confident, responsible individuals with high learning motivation. Support provided in the form of attention, open communication, active involvement, and opportunities for development can encourage children to be more enthusiastic about learning and achieve optimal performance.¹³

One of the most important strategies is building good communication between parents and children. Open, honest, and empathetic communication allows children to feel valued and understood. Through this communication, parents can understand their children's needs and feelings and provide appropriate guidance. Children who feel heard tend to be more confident, less afraid to express their opinions, and more open in sharing their experiences, including challenges they face in learning. These include:

- a. Building good communication between parents and children
- b. Consistency in educating children
- c. Emotional support and active involvement of parents
- d. Implementation of positive discipline

Learning Styles

According to Ghufron, learning styles are techniques for understanding how people learn, or the approaches each person uses to focus on the learning process and master challenging and new material through various perspectives. In understanding a subject, a student's learning style significantly determines how they understand and absorb the knowledge provided by the teacher.¹⁴

Deporter and Henarcki argue that a person's learning style is a combination of how they acquire knowledge and then process it into new knowledge. Teachers need to understand that each student has a different learning style, so that children receive treatment tailored to their individual learning styles.¹⁵

It can be concluded from the opinions of several figures above, that learning style is a combination of ways of absorbing, organizing, and absorbing information. This means that each student has a different learning style, especially regarding how they absorb information.

¹³ Rizky Anggalia Kusuma and Henry Aditia Rifiant, "Pengaruh Pola Asuh Orang Tua Dalam Meningkatkan Prestasi Belajar Anak," *Didaktik: Jurnal Ilmiah PGSD FKIP Universitas Mandiri* 09, no. September (2016): 1–23.

¹⁴ Nora Nasution, "Hakikat Gaya Belajar Auditori Dalam Pandangan Filsafat," *At-Tazakki* 6, no. 2 (2022): 255–70.

¹⁵ Khovia Dwi Deswita, *Analisis Gaya Belajar Siswa Berprestasi Akademik Di SDIT Amanah Tangerang*, 2024, 13–16.

Learning styles reflect the different ways individuals receive, process, and remember information. One of the most common learning styles is the visual learning style, which relies on the sense of sight. Students with a visual learning style tend to understand subject matter more easily when information is presented in the form of attractive images, diagrams, concept maps, graphs, or colors. They typically remember things they see more quickly than things they hear. Therefore, learning media rich in visual elements such as illustrations, videos, or colored notes are very helpful for students with this learning style to absorb material effectively.¹⁶

1. Visual Learning Style (Sight)

Students with a visual learning style tend to understand and remember subject matter more easily through visual stimulation. They are more responsive to information presented in the form of pictures, diagrams, graphs, colors, concept maps, or symbols. For example, when studying history, visual learners will grasp information more quickly if it is presented in the form of a pictorial timeline than if it is simply read from narrative text.

2. Auditory Learning Style (Hearing)

Auditory learning styles are dominated by the ability to absorb information through the sense of hearing. Students with this learning style are more effective in understand material delivered orally, such as through lectures, discussions, or audio recordings.

3. Kinesthetic Learning Style (Movement/Physical)

Students with a kinesthetic learning style tend to learn most effectively through physical activity and hands-on practice. They grasp concepts and skills more easily when they can actually do something, rather than just reading or listening. For example, in science class, kinesthetic students will understand material about experiments better if they directly conduct them in a laboratory setting rather than simply looking at pictures or listening to explanations.

RESEARCH METHODS

This study is a non-experimental quantitative study with an ex post facto approach that aims to analyze the influence of parenting patterns and learning styles on the learning outcomes of Islamic Religious Education (PAI) of fourth-grade students at MI Madani Alauddin, Gowa Regency. This design was chosen because the variables studied are natural and not manipulated by the researcher. Located in an area with diverse economic backgrounds of parents, this study uses a pedagogical approach to examine educational aspects and a psychological approach to observe behavioral symptoms and mental conditions of students in the learning process. The

¹⁶ Agus Suradi, *Studi Perbandingan Gaya Belajar Visual, Auditori, Dan Kinestetik Dengan Prestasi Belajar Mata Pelajaran PKn*, 2017.

study population includes all fourth-grade students, totaling 40 people, with a sample of 20 people using a purposive sampling technique.

Data were collected through a questionnaire method to measure parenting patterns and learning styles using a Likert scale, as well as a documentation method to obtain PAI UAS scores as a representation of learning outcomes. Before being analyzed, the questionnaire instrument was tested for validity using SPSS software and tested for reliability using the Cronbach's Alpha formula, which in this study produced a value of 0.982 or categorized as very high. The data processing process was carried out through descriptive statistical analysis to provide an overview of data distribution such as the average and standard deviation, as well as inferential statistical analysis. The inferential analysis included prerequisite tests in the form of a normality test using Chi-square, as well as hypothesis testing through independent two-sample t-tests and regression analysis to prove whether there was a significant relationship between variables partially or simultaneously.

RESULTS AND DISCUSSION

Research Data Description

OnThis section presents the research results in detail through statistical analysis. This study aims to examine the influence of parenting patterns and learning styles on the Islamic Religious Education (PAI) learning outcomes of fourth-grade students at MI Madani Alauddin.RegencyGowa. Data on parenting patterns and learning styles were collected using a Likert scale questionnaire, while learning outcomes data were obtained from the final semester exam scores in Islamic Religious Education. After all data were collected, descriptive analysis was conducted to provide a general overview of the tendencies of each variable. Furthermore, inferential analysis was used, which included classical assumption tests, linearity tests, simple linear regression, multiple linear regression, and hypothesis testing to determine whether or not there was an influence of parenting patterns and learning styles on Islamic Religious Education learning outcomes of fourth-grade students at MI Madani Alauddin, Gowa Regency. The results of this analysis became the basis for answering the problem formulation and testing the previously formulated hypotheses.The following are the research results obtained after conducting the research.

1. Parenting Patterns for Class IV MI Madani Alauddin Gowa Regency

Based on research that has been conducted on grade IV students at MI Madani Alauddin, Gowa Regency with a sample of 20 students as samples, the researcher can collect data through questionnaires that have been filled out by the students themselves, which are then scored by the researcher on each item.

This table is the results of descriptive analysis for parenting patterns of class IV students at MI Madani Alauddin, Gowa Regency as follows:

Statistics	Statistical Value
Average	89
Standard deviation	6
Range	20
Maximum	95
Minimum	75

In order to determine the results of the descriptive analysis for the parenting patterns of class IV students at MI Madani Alauddin, Gowa Regency, the researcher used the following formula:

- a. Determine the range

$$R = X_t - X_r$$

$$X_t = 95 \text{ and } 75 = 20 \text{ so}$$

$$R = 95 - 75$$

$$= 20$$

- b. Determining the Number of Interval Classes

$$K = 1 + 3.322 \log$$

$$= 1 + 3.322 \log 20$$

$$= 1 + 3.322 \cdot 1.302$$

$$= 1 + 4$$

$$= 5$$

- c. Determine the interval value with the formula:

$$p = \frac{R}{K}$$

$$= \frac{20}{5}$$

$$= 4$$

d. Creating a frequency distribution table

No	Interval	Frequency	Percentage
1	75-79	1	5%
2	80-84	4	20%
3	85-89	6	30%
4	90-94	5	25%
5	95-99	4	20%
Amount		20	100%

The distribution of scores shows the variation in student learning outcomes across five interval groups. In the 75–79 interval, there was only one student, or 5 percent, meaning very few students were in the low score category. The number of students began to increase in the 80–84 interval, with four students or 20 percent. The largest group was in the 85–89 interval with six students or 30 percent, making this interval the most dominant category. The 90–94 interval was also quite high with five students or 25 percent, indicating many students were in the good score category. Meanwhile, the highest interval of 95–99 was occupied by four students or 20 percent. Overall, this distribution pattern shows that the majority of students had scores in the middle to upper category, so the general picture of learning outcomes showed good performance.

Helper Table for Calculating the Average Score of Parenting Styles of Students

Class Interval	Frequency f_i	Midpoint (X_i)	$f_i X_i$
75-79	1	77	77
80-84	4	82	328
85-89	6	87	522
90-94	5	92	460
95-99	4	97	388
Amount	20		1,775

Based on the helper table, the average obtained is as follows:

$$\begin{aligned}
 M_x &= \frac{\sum f_i \cdot x_i}{\sum f_i} \\
 &= \frac{1.775}{20} \\
 &= 89
 \end{aligned}$$

- e. Calculating the standard deviation of students in Class IV of MI Madani Alauddin, Gowa Regency

Parenting Pattern Helper Table for Students' Parents

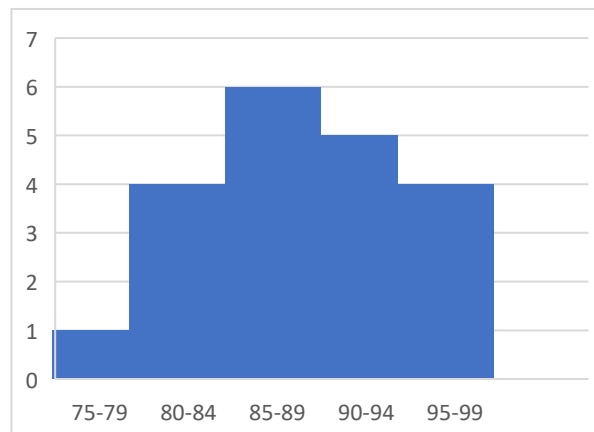
No	Interval	X_i	$(X_i)^2$	f_i	$f_i X_i$	$f_i (X_i)^2$
1	75-79	77	5,929	1	77	5,929
2	80-84	82	6,724	4	328	26,896
3	85-89	87	7,569	6	522	45,414
4	90-94	92	8,464	5	460	42,320
5	95-99	97	9,409	4	388	37,636
Amount				20	1,775	158,195

Based on the helper table, the standard deviation is obtained as follows:

$$\begin{aligned}
 S^2 &= \frac{n \sum f_i X_i^2 - (\sum f_i X_i)^2}{n(n-1)} \\
 &= \sqrt{\frac{n \sum f_i X_i^2 - (\sum f_i X_i)^2}{n(n-1)}} \\
 &= \sqrt{\frac{20(158.195) - (1.775)^2}{20(20-1)}} \\
 &= \sqrt{\frac{13.275}{380}} \\
 &= \sqrt{34,9342} \\
 &= 5.91 = 6
 \end{aligned}$$

Based on the calculation results above, a standard deviation of 6 was obtained for the parenting patterns of class IV students at MI Madani Alauddin, Gowa Regency.

Histogram parenting patterns



f. Creating a Category Table

Determination of data categories mThe learning motivation of class IV students at MI Madani Alauddin, Gowa Regency in this study refers to the level categorization with the classification of subjects into 3 categories.¹⁷The table of parenting style categories is as follows:

Categorization Table

Category Limits	Interval	Frequency	Percentage	Information
$X < (\mu - 1.0\sigma)$	$X < 83$	5	25%	Low
$(\mu - 1.0\sigma) \leq X < (\mu + 1.0\sigma)$	$83 \leq X < 95$	15	75%	Currently
$(\mu + 1.0\sigma) < X$	$95 \leq X$	0	0%	Tall
Amount		20	100%	

Based on the table above, it was found that 25% of the parenting patterns of grade IV students at MI Madani Alauddin, Gowa Regency were in the low category, 75% were in the medium category, and 0% were in the high category. The conclusion from the table above is that the parenting pattern scores of grade IV students at MI Madani Alauddin, Gowa Regency are included in the medium category.

2. Learning styles of students in Class IV Madani Alauddin, Gowa Regency

Based onThe research that has been conducted on grade IV students at MI Madani Alauddin, Gowa Regency with a sample of 20 students, the researcher can collect data through questionnaires that have been filled out by the students themselves, which are then given a score by the researcher for each item.

This bond is taThe results of the descriptive analysis for the learning styles of grade IV students at MI Madani Alauddin, Gowa Regency are as follows:

Descriptive Analysis of Students' Learning Styles

Statistics	Statistical Value
Average	83
Standard deviation	7
Range	25
Maximum	95
Minimum	70

In order to determine the results of descriptive analysis for the learning motivation of class IV students at MI Madani Alauddin, Gowa Regency, the researcher used the following formula:

¹⁷Saifuddin Azwar, Compiling Psychological Scales, (Yogyakarta: Pustaka Pelajar, 2013), p. 149.

- a. Determine the range

$$R = X_t - X_r$$

$$X_t = 70 \text{ and } 95 = 25 \text{ so}$$

$$R = 95 - 70$$

$$= 25$$

- b. Determining the Number of Interval Classes

$$K = 1 + 3.322 \log$$

$$= 1 + 3.322 \log 15$$

$$= 1 + 3.322 \cdot 1.302$$

$$= 1 + 4$$

$$= 5$$

- c. Determine the interval value with the formula:

$$p = \frac{R}{K}$$

$$= \frac{25}{5}$$

$$= 5$$

- d. Creating a frequency distribution table

No	Interval	Frequency	Percentage
1	70-75	4	20%
2	76-81	4	20%
3	82-87	6	30%
4	88-93	5	25%
5	94-99	1	5%
Amount		20	100%

The frequency distribution in the table shows the distribution of student scores across five score intervals. The 82–87 interval has the highest frequency, with 6 students (30%), indicating that most students are in the upper-middle score category. The next two intervals, 70–75 and 76–81, each have 4 students (20%), indicating that the proportion of students in the middle score range is still quite large. The 88–93 interval has 5 students (25%), indicating that quite a number of students obtained high scores. Meanwhile, only 1 student (5%) is in the 94–99 interval, indicating that achieving very high scores is still relatively rare. Overall, this distribution pattern shows a tendency for students' scores to be more in the middle and upper-middle categories, with a small proportion achieving very high scores.

Helper Table for Calculating Average Score

Class Interval	Frequency f_i	Midpoint (X_i)	$f_i X_i$
70-75	4	72.5	290
76-81	4	78.5	314
82-87	6	84.5	507
88-93	5	90.5	452.5
94-99	1	96.5	96.5
			1,660

Based on the helper table, the following averages were obtained:

$$\begin{aligned}
 M_x &= \frac{\sum f_i \cdot x_i}{\sum f_i} \\
 &= \frac{1.660}{20} \\
 &= 83
 \end{aligned}$$

- e. Calculating the standard deviation of parenting patterns of students of Class IV MI Madani Alauddin, Gowa Regency

Helper Table

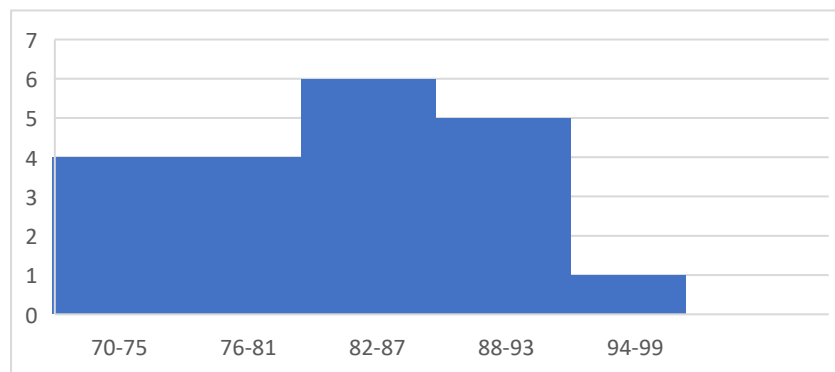
No	Interval	X_i	$(X_i)^2$	f_i	$f_i X_i$	$f_i (X_i)^2$
1	70-75	72.5	5,256.25	4	290	21,025
2	76-81	78.5	6,160.25	4	314	24,641
3	82-87	84.5	7,140.25	6	507	42,842
4	88-93	90.5	8,190.25	5	452.5	40,951.25
5	94-99	96.5	9,312.25	1	96.5	9,312.25
Amount				20	1,660	138,771.5

Based on the helper table, the following standard deviation is obtained:

$$\begin{aligned}
 S^2 &= \frac{n \sum f_i X_i^2 - (\sum f_i X_i)^2}{n(n-1)} \\
 &= \sqrt{\frac{n \sum f_i X_i^2 - (\sum f_i X_i)^2}{n(n-1)}} \\
 &= \sqrt{\frac{20(138,771.5) - (1,660)^2}{20(20-1)}} \\
 &= \sqrt{\frac{19,830}{380}} \\
 &= \sqrt{52.1842} \\
 &= 7
 \end{aligned}$$

Based on the calculation results above, a standard deviation of 7 was obtained for the parenting patterns of control class parents of grade IV students at MI Madani Alauddin, Gowa Regency.

Histogram



f. Creating a Category Table

Determination of data categories mThe learning motivation of class IV students at MI Madani Alauddin, Gowa Regency in this study refers to the level categorization with the classification of subjects into 3 categories.¹⁸The learning style category table is as follows:

Table 4.5: Categorization

Category Limits	Interval	Frequency	Percentage	Information
$X < (\mu - 1.0\sigma)$	$X < 76$	4	20%	Low
$(\mu - 1.0\sigma) \leq X < (\mu + 1.0\sigma)$	$76 \leq X < 90$	15	75%	Currently
$(\mu + 1.0\sigma) < X$	$90 \leq X$	1	5%	Tall
Amount		15	100%	

¹⁸Saifuddin Azwar, Compiling Psychological Scales, (Yogyakarta: Pustaka Pelajar, 2013), p. 149.

Based on the table above, it was found that 20% of the learning styles of fourth-grade students at MI Madani Alauddin, Gowa Regency were in the low category, 75% were in the medium category, and 5% were in the high category. The conclusion from the table above is that the learning style pattern scores of fourth-grade students at MI Madani Alauddin, Gowa Regency are in the medium category.

3. Learning Outcomes of Class IV Students of Madani Alauddin, Gowa Regency

Based on research that has been conducted on class IV students of MI Madani Alauddin, Gowa Regency with a sample of 20 students as samples, the researcher can collect data through questionnaires that have been filled out by the students themselves, which are then given a score by the researcher for each item.

The following is a table of descriptive analysis results for the learning outcomes of class IV students at MI Madani Alauddin, Gowa Regency, as follows:

Descriptive Analysis Table Learning outcomes

Statistics	Statistical Value
Average	87
Standard deviation	7
Range	20
Maximum	95
Minimum	75

In order to determine the results of descriptive analysis for the learning outcomes of class IV students at MI Madani Alauddin, Gowa Regency, the researcher used the following formula:

- a. Determine the range

$$R = X_t - X_r$$

$$X_t = 95 \text{ and } X_r = 75 \text{ so}$$

$$R = 95 - 75$$

$$= 20$$

- b. Determining the Number of Interval Classes

$$K = 1 + 3.322 \log$$

$$= 1 + 3.322 \log 20$$

$$= 1 + 3.322 \cdot 1.302$$

$$= 1 + 4$$

$$= 5$$

c. Determine the interval value with the formula:

$$p = \frac{R}{K}$$

$$= \frac{20}{5}$$

$$= 4$$

d. Creating a frequency distribution table

Frequency Distribution Table of Learning Outcomes

No	Interval	Frequency	Percentage
1	75-79	3	15%
2	80-84	6	30%
3	85-89	4	20%
4	90-94	3	15%
5	95-99	4	20%
Amount		20	100%

The data shows the distribution of student scores across five intervals, with a tendency toward the middle to upper categories. The 80–84 interval has the highest frequency, with 6 students or 30%, making it the most frequently achieved score group. The next two intervals, 85–89 and 95–99, each had 4 students (20%), indicating that some students were in the higher score category. Meanwhile, the 75–79 and 90–94 intervals each had 3 students (15%). This pattern illustrates a relatively even score distribution without extreme dominance in any one category, but still indicates a tendency for student scores to be in the good to excellent range. With a sample size of 20 students, this distribution suggests that overall learning outcomes are at a fairly positive level.

Helper Table for Calculating Average Score

Class Interval	Frequency f_i	Midpoint (X_i)	$f_i X_i$
75-79	3	77	231
80-84	6	82	492
85-89	4	87	348
90-94	3	92	276
95-99	4	97	388
Amount			1,735

Based on the helper table, the following averages were obtained:

$$\begin{aligned} M_x &= \frac{\sum f_i \cdot x_i}{\sum f_i} \\ &= \frac{1.735}{20} \\ &= 87 \end{aligned}$$

- e. Calculating the standard deviation of learning styles of class IV students at MI Madani Alauddin, Gowa Regency

Helper Table

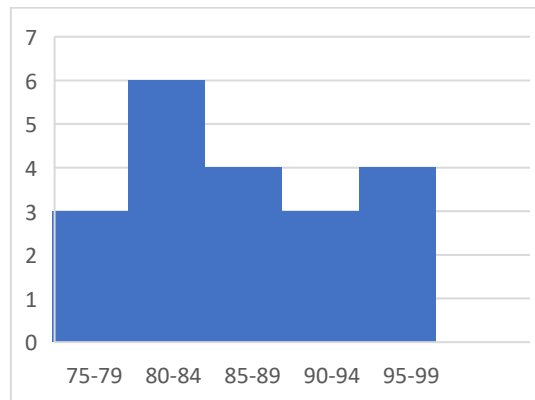
No	Class	Xi	Xi ²	fi	fi · Xi	fi · Xi ²
1	75-79	77	5,929	3	231	17,787
2	80-84	82	6,724	6	492	40,344
3	85-89	87	7,569	4	348	30,276
4	90-94	92	8,464	3	276	25,392
5	95-99	97	9,409	4	388	37,636
amount					1,735	151,435

Based on the helper table, the following standard deviation is obtained:

$$\begin{aligned} S^2 &= \frac{n \sum f_i X_i^2 - (\sum f_i X_i)^2}{n(n-1)} \\ &= \sqrt{\frac{n \sum f_i X_i^2 - (\sum f_i X_i)^2}{n(n-1)}} \\ &= \sqrt{\frac{20(151.435) - (1.735)^2}{20(20-1)}} \\ &= \sqrt{\frac{18.475}{380}} \\ &= \sqrt{48,62} \\ &= 7 \end{aligned}$$

Based on the results of the calculations above, a standard deviation of 7 was obtained for the learning styles of class IV Madani Alauddin students, Gowa Regency.

Histogram



f. Creating a Category Table

Determination of learning style data categories of class IV students of MI Madani Alauddin, Gowa Regency in researchThis refers to the categorization of levels by classifying subjects into 3 categories.¹⁹The learning motivation category table is as follows:

Categorization Table

Category Limits	Interval	Frequency	Percentage	Information
$X < (\mu - 1.0\sigma)$	$X < 80$	9	45%	Low
$(\mu - 1.0\sigma) \leq X < (\mu + 1.0\sigma)$	$80 \leq X < 94$	11	55%	Currently
$(\mu + 1.0\sigma) < X$	$94 \leq X$	0	0%	Tall
Amount		20	100%	

Based on the table above, it was found that 45% of the learning outcomes of grade IV students at MI Madani Alauddin, Gowa Regency were in the low category, 55% were in the medium category, and 0% were in the high category. The conclusion from the table above is that the learning outcomes scores of grade IV students at MI Madani Alauddin, Gowa Regency are in the medium category.

Prerequisite Test

Before conducting a regression test, prerequisite tests are first carried out, including the following;

1. Normality test

a. Test of normality of parenting patterns

The normality test aims to test whether in the regression model, the residual variables have a normal distribution or not. The data normality test is used to determine whether the data used by researchers comes from a normally distributed population or not. Data is normally

¹⁹Saifuddin Azwar, Compiling Psychological Scales, (Yogyakarta: Pustaka Pelajar, 2013), p. 149.

distributed if $\text{sig} > \alpha = 0.05$ and vice versa, the data is said to be not normally distributed if $\text{sig} < \alpha = 0.05$. Data normality testing was carried out using the SPSS 24 application. Based on the analysis of the prerequisite tests obtained, the conclusions of the normality test results can be seen in the table below:

Tests of Normality

Kolmogorov-Smirnova			
	Statistics	df	Sig.
x	.174	20	.116

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Based on the table, the parenting pattern data in this study has a significance of more than 0.05 ($0.116 > 0.05$), this means that the data in this study is normally distributed.

b. Normality test of learning styles

The normality test aims to test whether in the regression model, the residual variables have a normal distribution or not. The data normality test is used to determine whether the data used by researchers comes from a normally distributed population or not. Data is normally distributed if $\text{sig} > \alpha = 0.05$ and vice versa, data is said to be not normally distributed if $\text{sig} < \alpha = 0.05$. Data normality testing is carried out using the SPSS 24 application. Based on the analysis of the prerequisite tests obtained, the conclusions of the normality test results can be seen in the table below:

Tests of Normality

Kolmogorov-Smirnova			
	Statistics	df	Sig.
X	.198	20	.038

a. Lilliefors Significance Correction

Based on the table, the data on students' learning styles in this study has a significance of more than 0.05 ($0.38 > 0.05$), this means that the data in this study is normally distributed.

c. Normality test of learning outcomes

The normality test aims to test whether in the regression model, the residual variables have a normal distribution or not. The data normality test is used to determine whether the data used by researchers comes from a normally distributed population or not. Data is normally distributed if $\text{sig} > \alpha = 0.05$ and vice versa, data is said to be not normally distributed if $\text{sig} < \alpha = 0.05$. Data normality testing is carried out using the SPSS 24 application. Based on the analysis of the prerequisite tests obtained, the conclusions of the normality test results can be seen in the table below:

Tests of Normality

Kolmogorov-Smirnova

	Statistics	df	Sig.
x	.166	20	.148

a. Lilliefors Significance Correction

Based on the table, the data on student learning outcomes in this study has a significance of more than 0.05 ($0.148 > 0.05$), this means that the data in this study is normally distributed.

2. Linearity Test

The linearity test aims to determine the relationship between the independent and dependent variables, both partially and linearly. The linearity test is used to determine whether the data fits a linear line or not. This linearity test is an important requirement before conducting a regression analysis so that the model used is in accordance with the characteristics of the research data. Ktesting criterialinearitywith SPSS version 24 processing, namely if $\text{sig} < \alpha$ then the data is linear and if $\text{sig} > \alpha$ Therefore, the data is not linear. The results of the linearity test for parenting patterns on learning outcomes are presented in the following table:

Linearity Test Table of Parenting Patterns on Learning Outcomes

F _{count}	F _{table}	Information
2,040	4.41	Linear

Based on the results of the SPSS 24 analysis, the calculated f was $2040 < F$ table, which was 4.41, so it can be concluded that parenting patterns have a linear relationship with learning outcomes.

The results of the linearity test for learning styles on learning outcomes are presented in the following table:

Linearity Test Table of learning styles on learning outcomes.

F _{count}	F _{table}	Information
1,129	4.41	Linear

Based on the results of the SPSS 24 analysis, the calculated f was $1.129 < F$ table, which was 4.41, so it can be concluded that learning styles have a linear relationship with student learning outcomes.

3. Multicollinearity Test

The multicollinearity test aims to test whether the regression model finds a correlation between independent variables, the model regression A good correlation should not occur between independent variables.

To detect the presence or absence of multicollinearity in a regression model, we can look at the tolerance and variance inflation factor (VIF) values. The value commonly used to indicate

the presence of multicollinearity is tolerance. ≤ 0.10 or equal to a VIF value of 10. Each researcher must determine a tolerable level of collinearity. For example, a tolerance value of 0.10 is equal to a collinearity level of 0.95. $\geq$

Table Multicollinearity Test Results

Dimension	Eigenvalue	Condition Index	Variance Proportions (Learning Style / Parenting Pattern)
1	2,994	1,000	0.00 / 0.00
2	0.004	28,421	0.86 / 0.40
3	0.002	37,324	0.14 / 0.60

Based on the table above, it is known that all the results of the variance inflation factor (VIF) calculations for each independent variable are at the VIF value. ≤ 10 . So it can be concluded that there is no multicollinearity between the independent variables in the regression model.

4. Heteroscedasticity Test

The heteroscedasticity test aims to determine whether the residual variance (error) of the regression model is constant across all predictor values, because non-constant residual variance can affect the accuracy of coefficient estimates and statistical tests. One simple way to test heteroscedasticity is with a scatterplot, namely by plotting the standard residual value (Std. Residual) on the Y-axis against the predicted value (Predicted Value) on the X-axis, then observing the distribution pattern of the points on the graph. If the points are randomly distributed and form a horizontal pattern, the assumption of homoscedasticity is met, whereas if the points form a certain pattern such as widening or shrinking (forming a funnel or systematic pattern), then heteroscedasticity occurs. In this study, a scatterplot is used to ensure that the residual variance in the regression model remains constant across the range of predictor values; if the plot results show a random distribution, the regression model can be considered to meet the heteroscedasticity assumption and linear regression analysis can be used validly.

Results of Heteroscedasticity Test with Glesjer Test Method

Statistics	Min	Max	Average	Standard Deviation	N
Predicted Value	82.78	91.90	86.75	2.39	20
Residual	-7.78	10.15	0.00	5.40	20
Std. Predicted Value	-1.66	2.15	0.00	1.00	20
Std. Residual	-1.36	1.78	0.00	0.95	20

Based on the Residuals Statistics output, the residuals have a minimum value of -7.78 and a maximum of 10.15 with an average value of 0.00. The standardized residual values range from -

1.361 to 1.777, which is still within the normal range. The residual variation that does not show extreme deviations indicates that the distribution of points in the Scatterplot is random and does not form a specific pattern. Thus, the regression model in this study does not contain symptoms of heteroscedasticity and is suitable for use in the next stage of analysis.

5. Simple Linear Regression Test

a. Simple regression analysis of parenting patterns and learning outcomes (X and Y1)

Simple regression analysis was used to determine whether there was an influence of parenting patterns on learning outcomes in Islamic Religious Education (PAI). The regression analysis in this study used the SPSS 24 application with a significance level of $0.01 \leq \alpha \leq 0.05$ as follows:

Table of Results of Simple Regression Test X-Y1 with SPSS 24

Equalit y	a (Constant)	Regression Coefficient (b)
X → Y	117,156	-0.349

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	
(Constant)	117,156	19,662	—	5,959
Learning outcomes	-0.349	0.226	- 0.342	- 1,542

A simple linear regression analysis was used to determine whether there was an influence between the learning outcomes of fourth-grade students at MI Madani Alauddin, Gowa Regency, and parenting patterns. This analysis was conducted using SPSS 24 with a significance level of $\alpha = 0.05$.

Based on the results of the simple regression test, the regression line equation is obtained:

$$\text{Parenting Pattern} = 117.156 - 0.349 \cdot (\text{Learning Outcomes})$$

The regression equation $\text{Parenting Pattern} = 117.156 - 0.349 (\text{Learning Outcomes})$ shows that the constant value of 117.156 is the predicted value of parenting patterns when the learning outcome score is at zero. The regression coefficient of -0.349 indicates an inverse relationship between learning outcomes and parenting patterns. This means that every one unit increase in learning outcomes is predicted to be followed by a decrease in parenting pattern scores of 0.349 units, and vice versa. A negative regression coefficient indicates that the relationship between learning outcomes and parenting patterns is negative. However, based on the results of the significance test with a p value of $0.140 > 0.05$, the relationship is not statistically significant.

Thus, student learning outcomes cannot be convincingly explained by variations in parental parenting patterns, so parenting patterns cannot be used as a strong predictor in the regression model in this study.

b. Simple regression analysis of learning styles (X2)

Simple linear regression analysis was used to determine whether there was an influence between learning styles and specific learning outcomes in Islamic Religious Education (PAI) lessons. This inferential analysis was conducted using SPSS 24 with a significance level of $0.05.\alpha=0.05$ as follows:

Table of Results of Simple Regression Test X – Y2 with SPSS 24

Equalit y	a (Constant)	Regression Coefficient (b)
X → Y	73,371	0.117

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	
(Constant)	73,371	22,440	–	3,27 0
Learning outcomes	0.117	0.258	0.10 6	0.45 2

Simple linear regression analysis was used to determine whether there was an influence between learning outcomes and the learning styles of fourth-grade students at MI Madani Alauddin, Gowa Regency. This inferential analysis was conducted using SPSS 24 at a significance level of $\alpha = 0.05$.

Based on the results of the simple regression test, the regression line equation is obtained:

Learning Style = $73.371 + 0.117 \cdot (\text{Learning Outcomes})$ indicates that the constant value of 73.371 is the predicted value of students' learning styles when the learning outcome score is at zero. Meanwhile, the regression coefficient of 0.117 indicates that every one-unit increase in learning outcomes will be followed by an increase in learning style scores of 0.117 units. Conversely, if learning outcomes decrease by one unit, then the learning style score also tends to decrease by 0.117 units. A positive regression coefficient indicates that the relationship between learning outcomes and learning styles is unidirectional. This means that the higher the student's learning outcomes, the higher the learning style score shown, even though the increase is relatively small.

6. Multiple Linear Regression Test

Multiple linear regression analysis is used by researchers to predict the influence of two or more independent variables on the dependent variable. In this study, the dependent variable is the learning outcomes of Islamic Religious Education students in grade IV of MI Madani Alauddin, Gowa Regency, while the independent variables are parenting patterns (X1) and student learning styles (X2).

To determine whether or not there is an influence of parenting patterns and learning styles on student learning outcomes, multiple linear regression analysis is used which can be formulated as follows:

$$\hat{Y} = a + b_1X_1 + b_2X_2 \dots^{20}$$

Information:

- **Y**= Student learning outcome variables
- **a**= Multiple linear regression constant
- **X1**= Parenting pattern variable
- **X2**= Student learning style variables
- **b1**= Regression coefficient of parenting patterns
- **b2**= Regression coefficient of student learning styles
- **e**= Error

This analysis aims to determine whether changes in parenting patterns and student learning styles simultaneously influence learning outcomes, as well as the extent of the influence of each independent variable on the dependent variable.

Multiple Linear Regression Test Table

Variables	a (Constant)	Regression Coefficient (b)	F Count	F Table
Constant	104,325	–	1,668	3.81
Parenting Patterns (X1)	–	-0.401		
Learning Style (X2)	–	0.207		

Based on the table, the results of the multiple linear regression equation are as follows:

$$\hat{Y} = a + b_1X_1 + b_2X_2$$

$$\hat{Y} = 104.325 - 0.401X_1 + 0.207 X_2$$

²⁰M. Iqbal Hasan, Main Points of Statistics 2 (Inferential Statistics), p. 255.

The model shows that the constant (α) is 104.325, which means that if the parenting pattern (X1) and learning style (X2) variables have a value of 0, then the learning outcomes of class IV students at MI Madani Alauddin are at 104.325.

The regression coefficient value of the parenting pattern variable (b_1) is negative, namely -0.401. This can be interpreted as meaning that for every one unit increase in parenting patterns, student learning outcomes will decrease by 0.401, and conversely, if there is a one unit decrease in parenting patterns, student learning outcomes will increase by 0.401.

Meanwhile, the regression coefficient value of the learning style variable (b_2) is positive, namely 0.207, which means that every one unit increase in the quality of the student's learning style will be followed by an increase in learning outcomes of 0.207, and conversely, every one unit decrease in learning style will reduce the student's learning outcomes by 0.207.

Model Summary

R Square	Adjusted R Square	Standard Error of the Estimate
.786	.750	3.13306

From the Model Summary table, the value $R^2 = 0.750$ means that the independent variables of parenting patterns and learning styles are able to predict the value of the dependent variable on student learning outcomes by 75%, the remaining 25% is explained by other factors. This shows that the relationship between parenting patterns, learning styles, and student learning outcomes is in the strong to high category.

CONCLUSION

This study examined parenting patterns and learning styles as two family- and learner-related factors associated with Islamic Religious Education learning outcomes among fourth-grade students at MI Madani Alauddin, Gowa Regency. Descriptively, parenting pattern scores, learning style scores, and PAI learning outcomes were predominantly situated within the moderate category. These findings indicate considerable variation among students while suggesting that neither family parenting characteristics nor individual learning tendencies should be viewed independently from the broader educational environment in which learning takes place.

The simple regression results reported for parenting patterns indicate a negative coefficient, while the accompanying significance value suggests that the relationship was not statistically significant. Therefore, the present data do not provide sufficient statistical evidence to conclude that variations in parenting pattern scores independently predict students' PAI learning outcomes. This finding should not be interpreted as demonstrating that parenting is educationally

unimportant; rather, within this sample and measurement framework, its statistical contribution was not established convincingly.

Learning style showed a positive regression coefficient, suggesting that increases in the measured learning style score were associated with higher learning outcome scores in the reported model. Nevertheless, the strength and statistical significance of this relationship need to be confirmed through a consistent presentation of inferential statistics. Conceptually, the finding supports the importance of recognizing differences in how students receive, process, and engage with learning information, particularly within PAI instruction that involves cognitive understanding, affective internalization, and practical religious competencies.

The multiple regression analysis reports negative and positive coefficients for parenting patterns and learning styles, respectively, together with a relatively high coefficient of determination. However, the reported F-statistic and coefficient of determination are not internally consistent as presently presented in the manuscript. Consequently, the claim that parenting patterns and learning styles simultaneously exert a significant influence on PAI learning outcomes cannot yet be established from the current statistical presentation. Verification of the regression output is therefore essential before drawing definitive conclusions regarding simultaneous predictive effects.

Overall, this research provides an initial empirical basis for understanding the relationship among family parenting, students' learning characteristics, and PAI learning outcomes at the elementary madrasah level. Its findings should be interpreted within the limitations of a small purposively selected sample and an *ex post facto* design that does not permit strong causal inference. Future research should involve larger probability-based samples, validated multidimensional instruments, and more rigorous regression diagnostics while considering additional variables such as parental involvement, learning motivation, teacher competence, socioeconomic background, and the quality of the home learning environment.

Research Novelty

The novelty of this study lies in examining family parenting characteristics and students' learning styles simultaneously within the specific context of Islamic Religious Education learning at the elementary madrasah level. Rather than focusing exclusively on either family factors or classroom-related learner characteristics, the study brings both dimensions into a single analytical framework. This approach highlights that PAI learning outcomes may be shaped by interactions between the educational environment constructed at home and the ways students characteristically engage with learning information.

A further contribution lies in positioning parenting patterns as part of the broader educational ecology surrounding PAI learning. In Islamic elementary education, learning outcomes are not limited to cognitive achievement but are closely connected with habits, attitudes, religious values, and parental guidance. Examining parenting alongside students' learning styles therefore provides a more contextual perspective on PAI achievement than approaches that concentrate solely on classroom instruction or test performance.

The study also provides a methodological contribution by revealing the need for greater statistical precision when analyzing educational influences in small-sample madrasah research. The differences between descriptive tendencies, regression coefficients, statistical significance, and explanatory power demonstrate that these indicators should not be treated interchangeably. Accordingly, the study can provide a foundation for subsequent research that develops more robust models of family–learner–school interaction in explaining Islamic education outcomes.

Research Implications

Theoretically, the findings imply that PAI learning outcomes should be understood through an ecological perspective involving both family and learner characteristics. Parenting practices can shape learning routines, emotional support, discipline, and children's educational attitudes, while learning characteristics influence how students engage with instructional material. Future theoretical models should therefore incorporate these variables alongside motivation, parental involvement, teacher strategies, and socioeconomic conditions rather than assuming that a single factor determines achievement.

Pedagogically, teachers should avoid applying a uniform instructional approach to all students. Although learning-style classifications should not be treated as rigid labels, variation in students' preferences and learning engagement can inform the use of diverse instructional activities. PAI teachers may combine visual materials, oral explanation, discussion, recitation, demonstration, collaborative activities, and direct practice so that students encounter religious concepts through multiple modes of learning. Communication with parents can also help teachers identify learning habits and difficulties occurring at home.

Institutionally, MI Madani Alauddin can strengthen parent–school collaboration through parenting education, regular communication about students' learning development, and guidance on creating supportive home-learning environments. However, intervention programs should not be based solely on the statistical relationships reported in the current study until the regression analysis has been revalidated. Future school-based evaluation should use clearer instruments and larger datasets so that educational decisions are supported by reliable evidence rather than by descriptive assumptions alone.

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