



The Influence of the Student Teams Achievement Division (STAD) Cooperative Learning Model on the Learning Motivation in Christian Religious Education and Character Formation among Ninth-Grade Students at SMP Negeri 1 Pagaran

Agnesia Carmelita Mahulae^{1*}, Boho parulian Pardede², Goklas J. Manalu³, Robert K.A Simangunsong⁴, Jaya Nainggolan⁵

¹Student, Pendidikan Agama Kristen, Fakultas Ilmu Pendidikan Kristen, IAKN Tarutung
^{2,3,4,5}Lecturer, Fakultas Ilmu Pendidikan Kristen, IAKN Tarutung

*correspondence: agnesiacarmelita20@gmail.com

ABSTRACT

The purpose of this study was to determine the influence of the Student Teams Achievement Division (STAD) cooperative learning model on the learning motivation in Christian Religious Education and Character Formation among ninth-grade students at SMP Negeri 1 Pagaran in the 2025/2026 academic year. This research employed a quantitative approach with a pre-experimental design using a one-group pretest–posttest format. The population consisted of all ninth-grade Protestant Christian students at SMP Negeri 1 Pagaran in the 2025/2026 academic year, totaling 147 students. A purposive sampling technique was applied to select a sample of 32 students from class IX-1. Data were collected using a closed-ended questionnaire comprising 24 positive items. The data analysis results indicated a significant effect of the Student Teams Achievement Division (STAD) cooperative learning model on students' learning motivation in Christian Religious Education and Character Formation. This finding is evidenced by: (1) an increase in the mean pre-test score of students' learning motivation from 74.1875 to 85.6250 on the post-test, showing an improvement of 11.4375 points after the implementation of the STAD model; and (2) the results of the significance test showing that the calculated t value exceeded the t_{table} value ($\alpha = 0.05$; $df = 31$), with $t_{count} = 8.035 > t_{table} = 2.042$. Therefore, the alternative hypothesis (H_a), which states that there is a significant influence of the Student Teams Achievement Division (STAD) cooperative learning model on the learning motivation in Christian Religious Education and Character Formation among ninth-grade students at SMP Negeri 1 Pagaran in the 2025/2026 academic year, is accepted.

Keywords: STAD, Cooperative, Learning Model, Learning Motivation

INTRODUCTION

Education plays a crucial role in shaping students' character, morality, and personality. One of the most essential aspects for learners is Christian Religious Education and

Character Formation, which aims to instill spiritual and ethical values in daily life. Therefore, Christian Religious Education and Character Formation serve to build faith, love, and Christian character in students so that these values can be applied in their everyday behavior. However, the process of learning Christian Religious Education and Character Formation is often hindered by students' low motivation. Many students perceive this subject merely as reading, memorizing, and interpreting biblical verses, without realizing its deeper function as a means of character development that fosters values such as love, honesty, and responsibility. Consequently, students often lack the motivation to actively participate in the lessons, finding them monotonous and unengaging. In the teaching and learning process, teachers play a vital role as facilitators and guides, helping students achieve educational goals. Teaching and learning essentially constitute a communication process—a transmission of messages and ideas from one individual to another. Student success in learning largely depends on their engagement and activity during this process. The quality of learning outcomes can be observed when students demonstrate positive behavioral changes and achieve strong academic results. Therefore, the appropriate use of instructional models is essential to ensure that learning objectives are effectively achieved. Christian Religious Education serves as a fundamental component in shaping students' moral and spiritual development. Through this learning, students are expected not only to understand Christian teachings cognitively but also to internalize and apply faith-based values in their daily lives. However, in practice, many students show little enthusiasm or motivation toward this subject. This lack of motivation is reflected in minimal class participation, low interest in completing assignments, and suboptimal learning outcomes. One contributing factor is the use of conventional teaching methods that fail to actively engage students. Motivation, however, is a key factor in determining academic success. Hence, it is necessary to implement approaches that enhance students' involvement and enthusiasm in learning. High learning motivation involves a strong internal drive to achieve educational goals. Students with high motivation will engage seriously in learning activities. Therefore, teachers must possess the ability to stimulate students' motivation. Motivated students tend to complete assignments diligently and on time, showing perseverance in overcoming difficulties and taking responsibility for finding solutions—whether by consulting peers or directly asking the teacher. In this context, motivation becomes one of the teacher's primary roles and responsibilities in the learning process.

According to Hamzah B. Uno, motivation and learning are two interrelated elements. Learning is a relatively permanent change in behavior resulting from reinforced practice aimed at achieving specific goals. Several factors influence students' learning motivation, which can be categorized into internal and external factors. Internal factors include physical and psychological aspects—such as health, attention, intelligence, and aptitude—while external factors encompass family, school, and community environments. Family factors involve the parent-child relationship; school factors relate to teaching quality and classroom climate; and community factors include social interactions with peers and neighbors. The choice of peers, in particular, can significantly affect students' learning motivation. For optimal motivation to develop, these factors should function harmoniously and consistently. However, students' learning motivation often fluctuates depending on classroom dynamics and the learning atmosphere. A monotonous or repetitive teaching style can lead to boredom, disengagement, and lack of enthusiasm—

especially in Christian Religious Education. Learning motivation is a decisive factor influencing students' success in education. Highly motivated students tend to be persistent in completing assignments, demonstrate strong self-confidence, and show resilience in facing challenges. These three indicators serve as benchmarks for assessing students' responsibility and engagement in the learning process. Nonetheless, challenges remain in fostering students' motivation. Some students display inconsistency in completing assignments punctually and depend heavily on others' assistance. In terms of self-confidence, many hesitate to express opinions or answer questions—even when they know the answers. Additionally, perseverance in facing difficulties remains low, as shown by tendencies to give up easily and lack initiative in problem-solving. This indicates the need to strengthen students' learning motivation to cultivate positive attitudes toward academic tasks, encourage active participation, and foster a resilient spirit in overcoming challenges.

Based on the researcher's observations at SMP Negeri 1 Pagaran, it was found that Christian Religious Education teachers had not yet implemented the Student Teams Achievement Division (STAD) model. Several issues related to student motivation were also identified among ninth-grade students, including a lack of seriousness during lessons and difficulties answering questions or solving problems given by the teacher. These challenges were attributed to students' low attention levels during instruction and minimal responsiveness to learning activities. Additionally, when divided into small groups, some students failed to contribute to group tasks, assuming that they would still receive the same grade regardless of participation. Such conditions highlight the need for greater attention to students' motivation and engagement in the learning process. One effective strategy to enhance students' learning motivation is through innovative and engaging instructional models. The application of the Student Teams Achievement Division (STAD) model in Christian Religious Education is expected to create a more dynamic, participatory, and enjoyable learning environment. Through this model, students become active participants rather than passive listeners, engaging in discussions and collaboratively exploring faith-based values in a contextual manner. The model emphasizes teamwork by organizing students into small, diverse groups where members with varying abilities work together. This approach promotes cooperation, communication, and the exchange of ideas, thereby stimulating students' motivation and active involvement in learning. The identification of the problem in this study refers to the underlying issues that serve as the foundation for research exploration. The identified problems related to the implementation of the Student Teams Achievement Division (STAD) model in ninth-grade classes at SMP Negeri 1 Pagaran during the 2025/2026 academic year are as follows: first, the low learning motivation among ninth-grade students, many of whom experience a decline in enthusiasm—particularly before final examinations—as reflected in minimal class participation, lack of effort in completing assignments, and decreased academic performance; second, the limited variation in teaching models, as teachers tend to rely predominantly on lecture-based or conventional one-way methods, resulting in passive student engagement and reduced involvement in the learning process.

RESEARCH METHOD

This study employed a quantitative approach with a pre-experimental design, specifically utilizing a one-group pretest–posttest design. This design was selected to examine the effect of the Student Teams Achievement Division (STAD) cooperative learning model on students' learning motivation in Christian Religious Education and Character Formation. The research design can be illustrated as follows:

$$O_1 \times O_2$$

Where:

- O_1 = Pre-test (initial measurement of learning motivation)
- X = Treatment (implementation of STAD cooperative learning model)
- O_2 = Post-test (final measurement of learning motivation)

The population of this study consisted of all ninth-grade Protestant Christian students at SMP Negeri 1 Pagaran in the 2025/2026 academic year, totaling 147 students distributed across multiple classes. A purposive sampling technique was employed to select the research sample based on specific predetermined criteria. The sample comprised 32 students from class IX-1, who were selected considering their characteristics and accessibility for the implementation of the STAD cooperative learning model. Data collection was conducted using a closed-ended questionnaire designed to measure students' learning motivation in Christian Religious Education and Character Formation. The instrument consisted of 24 positive items developed based on indicators of learning motivation, including attention, relevance, confidence, and satisfaction. Each item employed a Likert scale with five response options: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree, scored 5, 4, 3, 2, and 1 respectively. Prior to implementation, the questionnaire underwent validity and reliability testing to ensure the instrument's accuracy and consistency in measuring learning motivation. Items that met the validity criteria ($r_{\text{count}} > r_{\text{table}}$) and demonstrated adequate reliability (Cronbach's Alpha > 0.70) were retained for use in the study. The collected data were analyzed using both descriptive and inferential statistics. Descriptive analysis was employed to calculate the mean, standard deviation, and range of pre-test and post-test scores. Inferential analysis utilized the paired sample t-test to determine whether there was a significant difference between pre-test and post-test scores, thereby indicating the effect of the STAD model on learning motivation.

Before conducting the t-test, prerequisite tests were performed, including normality test to verify that the data were normally distributed using the Shapiro-Wilk test. Homogeneity test to ensure variance homogeneity between groups. The hypothesis testing employed a significance level of $\alpha = 0.05$. The decision criterion was: if $t_{\text{count}} > t_{\text{table}}$, the null hypothesis (H_0) would be rejected and the alternative hypothesis (H_a) would be accepted, indicating a significant effect of the STAD model on learning motivation.

RESULTS AND DISCUSSION

The descriptive analysis of students' learning motivation scores before and after the implementation of the Student Teams Achievement Division (STAD) cooperative learning

model revealed substantial improvements. Table 1 presents the descriptive statistics for both pre-test and post-test measurements.

Table 1. Descriptive Statistics of Learning Motivation Scores

Measurement	N	Mean	Std. Deviation	Minimum	Maximum
Pre-test	32	74.1875	8.562	58	89
Post-test	32	85.6250	6.341	72	96
Mean Difference	32	11.4375	8.052	-	-

The data in Table 1 demonstrate that the mean learning motivation score increased from 74.1875 in the pre-test to 85.6250 in the post-test, representing an improvement of 11.4375 points. This substantial increase suggests that the implementation of the STAD model positively influenced students' learning motivation in Christian Religious Education and Character Formation. Furthermore, the standard deviation decreased from 8.562 to 6.341, indicating more homogeneous motivation levels among students following the intervention. Before conducting hypothesis testing, normality and homogeneity tests were performed to ensure the data met the assumptions required for parametric statistical analysis. The Shapiro-Wilk test was employed to assess the normality of data distribution. The results indicated that both pre-test and post-test scores were normally distributed ($p > 0.05$), satisfying the normality assumption for paired sample t-test analysis. Levene's test for equality of variances confirmed that the data demonstrated adequate homogeneity ($p > 0.05$), allowing for the appropriate application of parametric testing procedures.

Hypothesis Testing Results

A paired sample t-test was conducted to examine whether the observed increase in learning motivation scores was statistically significant. The hypothesis tested was:

H_0 : There is no significant effect of the STAD cooperative learning model on learning motivation in Christian Religious Education and Character Formation among ninth-grade students at SMP Negeri 1 Pagaran.

H_a : There is a significant effect of the STAD cooperative learning model on learning motivation in Christian Religious Education and Character Formation among ninth-grade students at SMP Negeri 1 Pagaran.

Table 2. Paired Sample T-Test Results

Comparison	t-calculated	df	t-table ($\alpha = 0.05$)	Sig. (2-tailed)	Decision
Pre-test vs Post-test	8.035	31	2.042	0.000	H_0 Rejected

The results presented in Table 2 reveal that the calculated t-value (8.035) exceeded the critical t-table value (2.042) at a significance level of $\alpha = 0.05$ with 31 degrees of freedom. Additionally, the p-value (0.000) was considerably lower than the significance threshold (0.05). These findings provide strong statistical evidence to reject the null hypothesis and accept the alternative hypothesis. Consequently, it can be concluded that the Student Teams Achievement Division (STAD) cooperative learning model exerted a significant

positive effect on students' learning motivation in Christian Religious Education and Character Formation.

Interpretation of Findings

The findings of this study demonstrate that the implementation of the STAD cooperative learning model significantly enhanced learning motivation among ninth-grade students in Christian Religious Education and Character Formation at SMP Negeri 1 Pagaran. The substantial increase in mean motivation scores from 74.1875 to 85.6250, coupled with a statistically significant t-test result ($t = 8.035$, $p < 0.001$), provides compelling evidence for the effectiveness of the STAD model in this educational context. Several factors inherent to the STAD cooperative learning model may explain the observed improvement in learning motivation: 1) Collaborative Learning Environment; The STAD model's emphasis on heterogeneous team composition created opportunities for peer interaction and mutual support. This collaborative structure likely fostered a sense of belonging and reduced learning anxiety, particularly for students who might have felt isolated in traditional instructional settings. The social dimension of learning within teams may have enhanced students' intrinsic motivation by making the learning process more engaging and enjoyable. 2) Individual Accountability and Team Recognition; The dual emphasis on individual quizzes and team achievement in STAD created a balanced motivational structure. Students were motivated to master the material not only for personal success but also to contribute to their team's achievement. This combination of individual accountability and collective responsibility likely strengthened students' commitment to learning and maintained consistent engagement throughout the instructional period. 3) Structured Learning Process; The systematic phases of STAD—from teacher presentation to team study, individual assessment, and recognition—provided clear structure and predictability that may have reduced cognitive load and increased students' confidence in their ability to succeed. When students understand the learning process and perceive it as manageable, their self-efficacy and motivation typically increase. The regular assessment and recognition components of STAD provided students with timely feedback on their progress and opportunities for public acknowledgment of achievement. This immediate reinforcement likely sustained motivation by making learning gains visible and celebrating improvement, which aligns with motivation theories emphasizing the importance of perceived progress and competence. These findings align with established motivation theories. Self-Determination Theory posits that motivation flourishes when three psychological needs are met: autonomy, competence, and relatedness. The STAD model appears to address all three needs: team-based learning satisfies relatedness, structured support enhances perceived competence, and choice within collaborative activities provides elements of autonomy. Similarly, from the perspective of Achievement Motivation Theory, the STAD model's recognition system and focus on improvement rather than absolute performance may have been particularly effective in motivating students with varying ability levels. By emphasizing growth and team contribution, the model created multiple pathways to success and recognition. The significant positive effect observed in this study holds particular relevance for Christian Religious Education and Character Formation. Religious education often emphasizes values such as community, mutual support, service to others, and collective spiritual growth—principles that align naturally with cooperative learning approaches. The STAD model's team-based

structure may have resonated with Christian teachings about fellowship and bearing one another's burdens, thereby creating pedagogical congruence between method and content. Furthermore, increased motivation in religious education may have broader implications for character formation. When students are more motivated to engage with religious and ethical content, they may be more likely to internalize values, reflect on moral principles, and develop the character dispositions that Christian education seeks to cultivate. While the results are encouraging, several limitations should be acknowledged. The pre-experimental design with a single group limits the ability to attribute changes in motivation exclusively to the STAD intervention, as external factors or maturation effects cannot be entirely ruled out. Future research employing true experimental designs with control groups would strengthen causal inferences. The study focused on a single class within one school, which may limit the generalizability of findings to other contexts. Cultural, institutional, and demographic factors specific to SMP Negeri 1 Pagaran may have influenced the results. Replication studies in diverse settings would help establish the robustness and transferability of these findings. The reliance on self-report questionnaires to measure motivation, while standard practice, introduces potential response biases. Triangulation with behavioral indicators of motivation—such as classroom participation, assignment completion, or sustained attention—would provide a more comprehensive assessment of motivational changes.

CONCLUSION

This study provides empirical evidence that the Student Teams Achievement Division (STAD) cooperative learning model significantly enhances learning motivation in Christian Religious Education and Character Formation among ninth-grade students. The substantial increase in motivation scores and strong statistical significance suggest that STAD represents a viable and effective instructional approach for promoting student engagement in religious education contexts. By fostering collaborative learning environments, providing structured support, and recognizing both individual and collective achievement, STAD addresses key motivational factors that influence student learning. These findings contribute to the growing body of research on effective pedagogies for religious education and offer practical guidance for educators seeking to enhance student motivation and engagement in character formation programs.

BIBLIOGRAPHY

- Arikunto, Suharsimi. (2019). *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: PT. Rineka Cipta.
- Aris Shoimin. (2013). *68 Model pembelajaran Inovatif Dalam Kurikulum 2013* (Yogyakarta: Ar-Ruzz Media.
- Arianci, N., dkk. (2021). *Peranan Pendidikan Agama Kristen dalam membangun keluarga kristen*. Jawa Barat

- Andri Budiman, (2022). T OP: sekolah Teologi “*pengaruh pengajaran Pendidikan Agama Kristen terhadap perilaku peserta.*” *Jurnal Teologi dan Pendidikan Agama Kristen.*
- Budiman, Andri & Sianturi, OP, Tumpak. (2022). “Pengaruh Pengajaran Pendidikan Agama Kristen Terhadap Perilaku Peserta Didik.” *Jurnal Teologi Dan Pendidikan Agama Kristen* 5.
- Hartini Nara,Eveline Siregar, (2014). *Teori Belajar dan Pembelajaran.*Bogor.
- Hariato GP (2012). *Pendidikan Agama Kristen dalam Alkitab &Dunia Pendidikan Masa kini* . Yogyakarta: CV.ANDI.
- Hariyanto. Agus.FX (2019). *Teams Games Tournament (TGT) & Jigsaw melalui pendekatan Sainifik.* Yogyakarta: Cv Budi Utama
- Hasudungan, (2020). *Pengantar Pendidikan Agama Kristen*,ed PMBR Andi.Yogyakarta.
- Istarani. (2015). *58 model pembelajaran inovatif.*Medan.
- Joko Krismanto Harianja, dkk(2022). *Tipe-tipe model pembelajaran kooperatif.* Jakarta
- Kompri, (2018). *Motivasi pembelajaran perspektif Guru dan siswa.*Bandung.
- Marthen Sahertian. (2019). “Pendidikan Agama Kristen dalam Sudut Pandang John Dewey”*Jurnal Teruna Bhakti.*
- Miftahul Huda. (2014). *Model-model Pengajaran dan Pembelajaran.* Yogyakarta.
- Mirna Elfriningsi, dkk. (2023). *Strategi inovatif menelaah model-model pembelajaran guru Pendidikan Agama Kristen bagi peserta didik.* Kalimantan Selatan: Pt.Ruang karya
- R.Toto Sugiarto, (2021). *Pendidikan Budi Pekerti.*Hikam Pustaka.
- Retno Widyastuti. (2019). *Kebaikan Akhlak Dan Budi Pekerti.* Semarang.
- Rinaldus Tanduklangi. (2022). “Analisis Teologis Tentang Tujuan Pendidikan Agama Kristen (PAK) dalam *Matius 28:19-20*,*Jurnal Teologi Pendidikan Kristen.*
- Priansa, DonI Juni. (2017). *Pengembangan Strategi Dan Model Pembelajaran.* Bandung: CV Pustaka Setia, 2024. Sardiman. *Interaksi Dan Motivasi Belajar Mengajar.* Jakarta: PT.Raja Grafindo Persada..
- Pulungan, Istirani & Intan. (2023). *Ensiklopedi Pendidikan Jilid 1.* Medan: Media Persada.
- Sardiman. (2018). *Interaksi Dan Motivasi Belajar Mengajar.* Jakarta: PT.Raja Grafindo Persada.

Sudjana. (2017). *Metode Statistik*. Bandung: Tarsito.

Sugiyono. (2022). *Metode Penelitian Kuantitatif, Kualitatif Dan R&D*. Bandung: Alfabeta.