THE EFFECTIVENESS OF THE LEARNING CYCLE 5E INTEGRATED WITH PROBLEM BASED LEARNING IN ENHANCING STUDENTS'LEARNING MOTIVATION IN ISLAMIC RELIGIOUS EDUCATION AND CHARACTER EDUCATION

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Abstract**:** This study was conducted to analyze the effectiveness of the Learning Cycle 5E model. integrated with Problem Based Learning (PBL) in enhancing students' learning motivation in the context of Islamic Religious Education (PAI) and Character Education Conducted at SMP Negeri 37 Bandar Lampung. this research adopted a quantitative approach with a quasi experimental posttest-only control group design.involving an experimental class and a control class. The data were obtained through a learning motivation questionnaire that had undergone validity and reliability testing, and subsequently analyzed using an an independent samples t-test was employed to examine differences in learning motivation levels between the groups. The results demonstrate that the application of the Learning Cycle 5E model based on PBL significantly enhanced students' learning motivation compared to conventional instruction. Improvements were reflected in students' active engagement, intrinsic motivation, self confidence, and the strengthening of religious attitudes throughout the learning process. The originality of this study stems from the integration of the Learning Cycle 5E model with the Problem Based Learning approach within junior secondary PAI and Character Education, an area that has rarely been examined in an integrated manner. The study's implications suggest that this model fosters interactive, meaningful, and student centered learning, thereby serving as an innovative alternative strategy to enhance learning motivation while simultaneously reinforcing students' character development. Theoretically, this research contributes to the advancement of constructivist learning studies in religious education, while practically providing evidence-based guidance for teachers in designing effective and contextually relevant instructional practices for contemporary learners.

Keywords: Character Education, Learning Cycle 5E,Learning Motivation, Islamic Religious Education, Problem Based Learning.

Abstrak: Penelitian ini dilakukan untuk menganalisis efektivitas Model Siklus Pembelajaran 5E yang diintegrasikan dengan Pembelajaran Berbasis Masalah (PBL) dalam meningkatkan motivasi belajar siswa dalam konteks Pendidikan Agama Islam (PAI) dan Pendidikan Karakter yang dilaksanakan di SMP Negeri 37 Bandar Lampung. Penelitian ini menggunakan pendekatan kuantitatif dengan desain quasi eksperimental posttest-only control group, melibatkan kelas eksperimen dan kelas kontrol. Data diperoleh melalui kuesioner motivasi belajar yang telah melalui uji validitas dan reliabilitas, dan kemudian dianalisis menggunakan uji t sampel independen untuk menguji perbedaan tingkat motivasi belajar antara kedua kelompok. Hasil penelitian menunjukkan bahwa penerapan model Siklus Pembelajaran 5E berdasarkan PBL secara signifikan meningkatkan motivasi belajar siswa dibandingkan dengan metode pengajaran konvensional. Peningkatan tersebut tercermin dalam keterlibatan aktif siswa, motivasi intrinsik, kepercayaan diri, dan penguatan sikap keagamaan sepanjang proses pembelajaran. Keaslian penelitian ini terletak pada integrasi Model Siklus Pembelajaran 5E dengan pendekatan Pembelajaran Berbasis Masalah (PBL) dalam mata pelajaran Pendidikan Agama Islam (PAI) dan Pendidikan Karakter di tingkat SMP, suatu bidang yang jarang dieksplorasi secara terintegrasi. Implikasi penelitian ini menunjukkan bahwa model ini memfasilitasi pembelajaran interaktif, bermakna, dan berpusat pada siswa, sehingga menjadi strategi alternatif inovatif untuk meningkatkan motivasi belajar sambil memperkuat pengembangan karakter siswa. Secara teoritis, penelitian ini berkontribusi pada perkembangan studi pembelajaran konstruktivis dalam pendidikan agama, sementara secara praktis memberikan panduan berbasis bukti bagi guru dalam merancang praktik pengajaran yang efektif dan relevan secara kontekstual untuk pembelajar kontemporer.

Kata kunci: Pendidikan Karakter, Siklus Pembelajaran 5E, Motivasi Belajar, Pendidikan Agama Islam, Pembelajaran Berbasis Masalah.

INTRODUCTION

Learning motivation is an internal factor that plays a crucial role in encouraging students to engage in learning activities, sustaining their involvement, and directing their behavior toward the achievement of educational objectives [1].

[1] Vivin Anis Faristin and Heri Saptadi Ismanto, "Faktor-Faktor Yang Mempengaruhi Motivasi Belajar Siswa SMA Factors Influencing High School Students' Learning Motivation," *PGRI Semarang; Jl. Sidodadi Timur No* 24, no. 024 (2023), 8316377.

Motivation encompasses the driving force, direction, and consistency of behavior aligned with personal goals, where students with high motivation tend to be persistent, resilient, not easily discouraged, and possess strong self-confidence [2]. They also demonstrate high interest, a preference for independent learning, an appreciation for challenges, and a strong inclination toward problem solving [3]. within Islamic Religious Education settings and Character Education (PAI and Budi Pekerti), learning motivation can be enhanced through the implementation of instructional models that emphasize active engagement and problem solving, one of which is the integration of the Learning Cycle 5E with a a Problem Based Learning (PBL) approach that promotes students' exploration of concepts through authentic, real-life contexts problems. This approach is believed to foster meaningful learning environments, increase active participation, and strengthen conceptual understanding [4].

instructional effectiveness is also determined by the selection of appropriate models, methods, media, and learning resources that align with the characteristics of the subject matter and students' needs. The Learning Cycle 5E model integrated with Problem Based Learning (PBL) provides opportunities for students to engage in the sequential phases comprising engagement, exploration, explanation, elaboration, and evaluation through contextual problem solving activities, thereby stimulating interest, enhancing students' motivation while fostering a more engaging learning process

[2] Nora Afnita et al., "Meningkatkan Motivasi Belajar Siswa Melalui Media Pembelajaran Audio Visual," *Jurnal Yudistira : Publikasi Riset Ilmu Pendidikan Dan Bahasa* 7, no. 2 (2023): 126–30, https://doi.org/10.26740/jp.v7n2.p126-130; Deti Kurnia et al., "Peran Motivasi Dalam Meningkatkan Pembelajaran Siswa," *Cendekia Inovatif Dan Berbudaya* 1, no. 4 (2024), https://doi.org/10.59996/cendib.v1i4.477.

[3] Sri Lutfiwati, "Motivasi Belajar Dan Prestasi Akademik," *Al-Idarah: Jurnal Kependidikan Islam* 10, no. 1 (2020); Adi Kusumaputra, "Pengaruh Model Problem Based Learning (PBL) Terhadap Motivasi Belajar Siswa Pada Pelajaran PAI Kelas VII Sekolah Menengah Pertama Negeri 1 Mapat Tunggul," *EduSpirit : Jurnal Pendidikan Kolaboratif* 01, no. 04 (2024), 32–38.

[4] Eka Sumbulatim Miatu Habbah and Lingga Agustina Dwi Sari, "Jurnal Tonggak Pendidikan Dasar: Evaluasi Motivasi Belajar Peserta Didik Dalam Mata Pelajaran IPAS Kelas IV Di Sekolah Dasar," *Jurnal Tonggak Pendidikan Dasar: Jurnal Kajian Teori Dan Hasil Pendidikan Dasar* 2, no. 2 (2023), https://online-journal.unja.ac.id/jtpd/about; Ferdy Fahrurrazi, Sri Setia, and Putra Jayawardaya, "Meningkatkan Motivasi Belajar Siswa SD Melalui Metode Pembelajaran Interaktif," *Bahasa Dan Budaya* 2, no. 3 (2024), https://doi.org/10.61132/semantik.v2i3.776.

meaningful and effective [5]. The use of instructional media such as images and videos, along with diverse learning resources from textbooks, the internet, and the surrounding environment, further enriches students' learning experiences [6]. Moreover, a conducive classroom atmosphere characterized by positive interactions between teachers and students can increase focus, enthusiasm, and learning engagement [7]. Therefore, This study seeks to evaluate the effectiveness of the Learning Cycle 5E model based on Problem Based Learning in improving students' learning motivation within Islamic Religious Education and Character Education (PAI and Budi Pekerti) at SMP Negeri 37 Bandar Lampung, as an effort to create optimal and meaningful learning experiences [8].

However, based on a preliminary study conducted at SMP Negeri 37 Bandar Lampung through observations, interviews, and documentation with the Islamic Religious Education (PAI) teacher, Mrs. Laras Setyawan, S.Pd., as well as several students from Grade VII-3, several issues in PAI instruction were identified. The learning process was still predominantly dominated by lecture-based methods, which made students passive and easily disengaged. In addition, electronic-based supporting facilities were limited, and the utilization of textbooks and instructional media had not yet been maximized. Furthermore, although efforts had been made to create an enjoyable classroom atmosphere through games and interactive activities, these strategies had not been sufficiently demonstrated effectiveness in optimally improving students' learning motivation and depth of conceptual understanding.

[5] Ardila Putri Noza and Reza Anke Wandira, "Pentingnya Metode Belajar Dalam" 8, no. 4 (2024); Amelia Putri Wulandari et al., "Pentingnya Media Pembelajaran Dalam Proses Belajar Mengajar," *Journal on Education* 5, no. 2 (2023), https://doi.org/10.31004/joe.v5i2.1074.

[6] Aliah et al., "Pentingnya Sumber Belajar Dalam Pendidikan Di Sekolah" 1 (2024).

[7] Fuadi Muhammad et al., "Pengaruh Model Learning Cycle 5E Terhadap Motivasi Belajar Dan Hasil Belajar Fisika Peserta Didik SMA Negeri 2 Woha Bima," *Jurnal Pendidikan Mipa* 10, no. 2 (2020), https://doi.org/10.37630/jpm.v10i2.387.

[8] Angga Setiawan, Wahyu Nugroho, and Dessy Widyaningtyas, "Pengaruh Minat Belajar Terhadap Hasil Belajar Siswa Kelas Vi Sdn 1 Gamping," *TANGGAP : Jurnal Riset Dan Inovasi Pendidikan Dasar* 2, no. 2 (2022), https://doi.org/10.55933/tjripd.v2i2.373.

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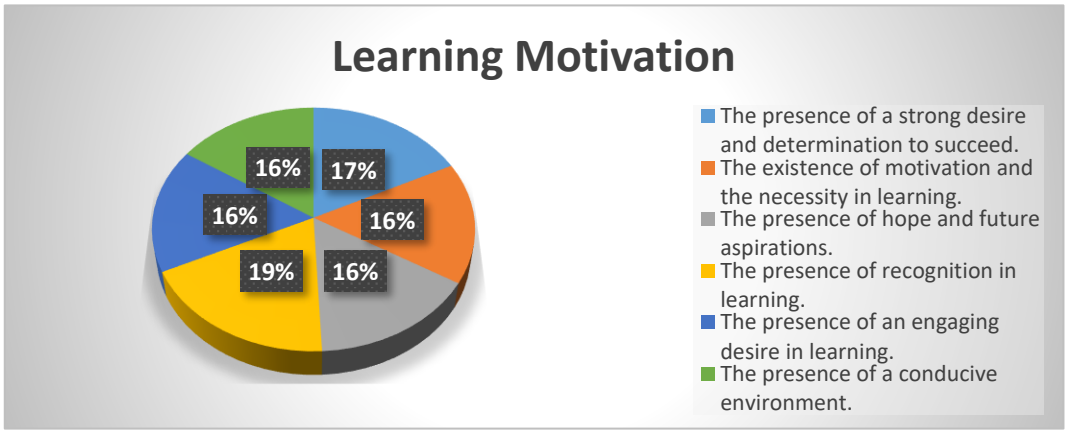

Figure 1

Results of the Recapitulation of Students' Learning Motivation Questionnaire at SMP Negeri 37 Bandar Lampung

Based on the pie chart, students' learning motivation was predominantly influenced by rewards in learning (19%) and the desire to achieve success (17%). Five other indicators demonstrated equal proportions of 16%, including learning drive, future expectations, learning interest, and a conducive learning environment. These findings indicate that most motivational indicators contributed relatively evenly, however, internal drivers such as the need for learning and personal aspirations had not yet emerged as primary sources of motivation. A prominent concern is the limited

role of environmental support and personal aspirations, despite both factors being crucial for fostering sustainable, long term learning motivation.

The Learning Cycle 5E model integrated with Problem Based Learning (PBL) represents a constructivist method designed to positions placing students as the central focus of the learning process through active engagement, autonomy, and collaboration in solving contextual problems. The integration of the Engagement, Exploration, Explanation, Elaboration, and Evaluation phases with PBL syntax comprising problem orientation, investigation, discussion, presentation of findings, and evaluation encourages students to construct knowledge independently through interaction with their environment and meaningful learning experiences [9]. In line with the perspectives of Paul Eggen and Don Kauchak, PBL functions as an instructional model that utilizes problems as the primary focus to develop problem-solving skills, content mastery, and students' self regulation [10]. The application of this model in Islamic Religious Education and Character Education enables students to develop a deeper understanding of religious concepts while connecting them to real life contexts and Islamic values [11].

Overall, the implementation of the Learning Cycle 5E integrated with Problem Based Learning (PBL) demonstrates a favorable enhancing learning motivation, as students are actively engaged in each stage of the learning process and are encouraged to think critically and creatively while collaborating in group discussions [12]. The strengths of this model are reflected in its ability to create

[9] Amjad Salong and Mohammad Amin Lasaiba, "Efektivitas Model Learning Cycle 5E Dalam Meningkatkan Hasil Belajar Siswa," *SAP (Susunan Artikel Pendidikan)* 9, no. 1 (2024), 36–44, https://doi.org/10.30998/sap.v9i1.21994.

[10] I Wayan Widana and Ni Made Rupita Widyastiti, "Model Learning Cycle 5E Untuk Meningkatkan Kemampuan Berpikir Kritis Matematika," *Journal of Education Action Research* 7, no. 2 (2023), 176–84, https://doi.org/10.23887/jear.v7i2.59337.

[11] (Cylindrica et al,2021, Djadir et al,2021,Ranita et al, 2021,Salong & Lasaiba, 2024)

[12] Isna Rahmi Firdiana and Rusdianto Supeno, "Pengaruh Model Learning Cycle 5E Berbantuan E-LKPD Berbasis Multirepresentasi Dalam Pembelajaran IPA Terhadap Higher Order Thinking Skills Siswa SMP," *PENDIPA Journal of Science Education* 7, no. 3 (2023), 355–61, https://doi.org/10.33369/pendipa.7.3.355-361; Eling Wulandari, Arum Ratnaningsih, and Rintis Rizkia Pangestika, "Pengaruh Model Learning Cycle 5E Berbantuan Powerpoint Interaktif Terhadap Hasil Belajar IPA," *Jurnal Educatio FKIP UNMA* 8, no. 1 (2022), 34–39, https://doi.org/10.31949/educatio.v8i1.1485.

interactive, meaningful, and well-structured learning experiences, enabling students to better understand learning objectives while fostering scientific attitudes and social skills [13]. Students' direct involvement in the exploration and elaboration of knowledge also increases interest and curiosity, making learning more enjoyable and applicable to real-life contexts [14]. Therefore, the Learning Cycle 5E model integrated with Problem Based Learning holds significant potential to enhance students' learning motivation while supporting the optimal achievement of Islamic Religious Education (PAI) and Character Education learning objectives [15].

A number of previous studies have demonstrated that the Learning Cycle 5E and Problem Based Learning (PBL), when implemented independently, are effective in improving students' learning outcomes and motivation. Studies conducted by Adha Frasiska and Ovi Andini [16], Aprilia Aksari [17], and Ika Hikmatul Ummi [18] confirmed that the Learning Cycle 5E enhances learning achievement, questioning

[13] Cylindrica, Dasna, and Sumari, "Pengaruh Model Pembelajaran Learning Cycle 5E Berbantuan E-Scaffolding Pada Materi Laju Reaksi Terhadap Pemahaman Konsep Siswa Dengan Motivasi Berprestasi Berbeda"; Nidawati, "Penerapan Motivasi Dalam Proses Pebelajaran," *Jurnal Manajemen Dan Pendidikan Agama Islam* 2, no. 3 (2024), 317–26, https://doi.org/10.61132/jmpai.v2i3.388.

[14] Fauziah Rahmawati, Yani Achdiani, and Shinta Maharani, "ASEAN Journal of Science and Improving Students ' Learning Outcomes Using 5E Learning Cycle Model," *ASEAN Journal of Science and Engineering Education* 1, no. 2 (2021): 97–100, https://doi.org/10. 17509/xxxxt.vxix; Rody Putra Sartika, E. Enawaty, and I. Lestari, "The Development of Scaffolding Aided Learning Tools Using 5E Learning Cycle Model," *JPI (Jurnal Pendidikan Indonesia)* 9, no. 3 (2020), 423–35, https://doi.org/10.23887/jpi-undiksha.v9i3.15712.

[15] Azhar Umar and Henny Dheana Putri, "Pengaruh Model Pembelajaran Learning Cycle Terhadap Kemampuan Menulis Teks Persuasi Pada Siswa," *Jurnal Riset Rumpun Ilmu Bahasa* 2, no. 2 (2023), https://doi.org/10.55606/jurribah.v2i2.1699; Muhammad et al., "Pengaruh Model Learning Cycle 5E Terhadap Motivasi Belajar Dan Hasil Belajar Fisika Peserta Didik SMA Negeri 2 Woha Bima."

[16] Andini, Ovi, Riyadi Saputra, and Suci Rahma Putri. "Pengaruh Model Learning Cycle '5E' Terhadap Hasil Belajar Ipa Tema I Sub Tema I Siswa Kelas Vi Di Sdn 17 Sitiung Kabupaten Dharmasraya." *Dharmas Education Journal (DE_Journal)* 2, no. 2 (2021), 295–300. https://doi.org/10.56667/dejournal.v2i2.360.

[17] Aksari, Aprilia, Frans Aditia Wiguna, and Muhamad Basori. "Pengaruh Model Pembelajaran Learning Cycle 5E Terhadap Kemampuan Menjelaskan Energi Alternatif Siswa Kelas IV SDN Mojoroto 4 Kota Kediri." *Jurnal Pendidikan Dan Kewirausahaan* 10, no. 1 (2021). https://doi.org/10.47668/pkwu.v10i1.339.

[18] Ummi, Ika Hikmatul, Heri Hadi Saputra, and Muhammad Syazali. "Efektivitas Model Pembelajaran Learning Cycle 5E(Engagement, Exploration, Explanation, Elaboration, Evaluation)Terhadap Hasil Belajar Ipa Siswa Kelas V Sdn 43 Ampenan." *Pendas: Jurnal Ilmiah Pendidikan Dasar* 9, no. 2 (2024), 6227–37.

skills, and conceptual understanding, while Muryadi [19] emphasized its positive influence on learning motivation. Meanwhile, research by Siti Aisyah, Helmi Yunansah, and Ketang Wiyono revealed that PBL consistently increases students' motivation and engagement in problem based learning environments. However, a research gap remains, as prior studies have largely examined these two models separately and have not integrated them within Islamic Religious Education (PAI) and Character Education at the junior at the junior high school level [20]. Therefore, the novelty of this study lies in the development of an integrative Learning Cycle 5E model grounded in Problem Based Learning, which systematically combines the 5E stages with contextual problem solving rooted in Islamic values. This approach ensures that learning extends beyond cognitive aspects to enhance students' learning motivation and strengthen their religious character, particularly among students at SMP Negeri 37 Bandar Lampung [21]

METHODS

This research utilized a quantitative method with a quasi-experimental design posttest only control group design. The research was conducted at SMP Negeri 37 Bandar Lampung during the first semester of the 2025/2026 academic year, involving

[19]Muryadi, Syarafina Ainun Nisa, Sulistyaningsih, and Setia Rahmawan. "Efektivitas Model Pembelajaran Learning Cycle 5E Terhadap Peningkatan Motivasi Belajar Peserta Didik Materi Koloid Di SMA Muhammadiyah 7 Yogyakarta." *PENDIPA Journal of Science Education* 8, no. 2 (2024), 243–52. https://doi.org/10.33369/pendipa.8.2.243-252.

[20] Anis Faristin and Saptadi Ismanto, "Faktor-Faktor Yang Mempengaruhi Motivasi Belajar Siswa SMA Factors Influencing High School Students' Learning Motivation"; Refta Disriani and Mhmd Habibi, "Hubungan Motivasi Belajar Siswa Terhadap Hasil Belajar Siswa," *Edukatif : Jurnal Ilmu Pendidikan* 5, no. 1 (2023): 125–31, https://doi.org/10.31004/edukatif.v5i1.4242; Nurul Aida Qalbi et al., "Pengaruh Penerapan Model Pembelajaran Problem Based Learning Terhadap Motivasi Belajar Siswa Jurusan Pengawasan Mutu SMK SMTI Makassar," *JIMU: Jurnal Ilmiah Multi Disiplin* 03, no. 04 (2025): 1107–14.

[21] Sani Susanti et al., "Dampak Negatif Metode Pengajaran Monoton Terhadap Motivasi Belajar Siswa," *PEDAGOGIK Jurnal Pendidikan Dan Riset* 2, no. 2 (2024): 86–93, https://journal.ummat.ac.id/index.php/fkip/article/view/10044/pdf; Ezy Zurriyati and Mudjiran Mudjiran, "Kontribusi Perhatian Orang Tua Dan Motivasi Belajar Terhadap Keterlibatan Siswa Dalam Belajar (Student Engagement) Di Sekolah Dasar," *Jurnal Basicedu* 5, no. 3 (2021): 1555–63, https://doi.org/10.31004/basicedu.v5i3.889; Dadang Juandi and Mitrayana, "Penerapan Problem Based Learning Dalam Pembelajaran Matematika : Systematic Literature Review," *Jurnal Pendidikan, Matematika Dan Sains* 8, no. 1 (2023): 90–103.

two classes: a group assigned as the experimental class and another as the control class. Class VII.5 served as the experimental group and were taught using the Learning Cycle 5E model integrated with Problem Based Learning (PBL), while class VII.4 functioned as the control group and was taught using conventional instructional methods. Participants were chosen using a simple random sampling method, ensuring that each class had an equal opportunity to be chosen. The study focused on examining the efficacy of the Learning Cycle 5E model based on Problem Based Learning (PBL) in enhancing students' learning motivation, particularly regarding the indicator of engaging learning interest, which had previously been identified as problematic.

The research instrument consisted of a questionnaire comprising 15 statement items (7 positive and 8 negative) developed based on learning motivation indicators. The instrument was piloted with trial respondents, resulting in 7 valid items, while 8 items were excluded for failing to meet the required r-table value. Instrument The reliability was assessed using Cronbach's Alpha, resulting in a coefficient of 0.682, indicating a high level of reliability and confirms confirming that the instrument was appropriate for use in the main study. The data obtained were then analyzed using an independent samples t-test with pooled variance to examine differences regarding students' learning motivation across the experimental and control groups following the instructional intervention.

Table 1 Tests of Normality

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Model pembelajaran	Statistic	df	Sig.	Statistic	df	Sig.
Hasil belajar siswa	eksperimen kelas	.134	25	.200*	.935	25	.115
	Kontrol kelas	.144	25	.189	.960	25	.407

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

a. Lilliefors Significance Correction

Based based on the outcomes of the normality test conducted using the Shapiro Wilk method presented in the table, the significance (Sig.) values for each variable were as follows: the Self Efficacy variable (Var. X) obtained a Shapiro Wilk Sig. value of 0.115, while the Academic Procrastination variable (Var. Y) obtained a

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Shapiro Wilk Sig. value of 0.407. The significance values in both tests were exceeding 0.05, suggesting that no significant difference existed between the distribution of the variables and a normal distribution. Therefore, it can be concluded that both variables Self Efficacy and Academic Procrastination were normally distributed. Meeting the assumption of normality is essential in linear regression analysis, as one of its primary prerequisites is that the data originate from a normal distribution. Accordingly, the data in this study were appropriate and met the requirements for use in simple linear regression analysis.

Table 2 Test of Homogeneity of Variance

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Hasil belajar siswa	Based on Mean	2.914	1	48	.094
	Based on Median	2.340	1	48	.133
	Based on Median and with adjusted df	2.340	1	46.459	.133
	Based on trimmed mean	2.697	1	48	.107

A homogeneity test was performed to assess whether the variances of the two datasets groups were equivalent (homogeneous). According to the Levene's the results of the test shown in the table, the significance values obtained from various homogeneity testing approaches were as follows: Based on Mean = 0.94, Based on Median = 0.113, Based on Median and with adjusted df = 0.133, and Based on Trimmed Mean = 0.525. All significance values across the four testing approaches were greater than 0.05, suggesting that no significant difference existed in the variance between the data groups. Hence, it can be inferred that the research data were homogeneous. Variance homogeneity is a crucial assumption in regression analysis, particularly to ensure that the distribution of errors or residuals remains stable. Since the test results confirmed that the data met the homogeneity assumption, the dataset was considered appropriate for further linear regression analysis.

Table 3 Independent Samples Test

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Hasil belajar siswa	Equal variances assumed	2.914	.094	3.334	48	.002	3.120	.936	1.238	5.002
	Equal variances not assumed			3.334	44.593	.002	3.120	.936	1.234	5.006

An independent t-test was conducted to determine whether the independent variable exerted a statistically significant partial effect on the dependent variable. Based on the Coefficients table, the t-test results for Academic Procrastination (Var.Y) on Self-Efficacy (Var.X) indicated a calculated t-value of 3.334 with a significance level of 0.000. Since the obtained significance value was lower than 0.05, it can be concluded that Academic Procrastination had a statistically significant partial effect on Self-Efficacy. This finding demonstrates a meaningful and statistically significant relationship between the two variables. Higher levels of academic procrastination were associated with significant changes in self-efficacy, consistent with the direction of the relationship indicated by the regression coefficient.

ANALYSIS

The findings indicate that the implementation of the Learning Cycle 5E model integrated with Problem Based Learning (PBL) was effective in enhancing students' learning motivation in Islamic Religious Education (PAI) and Character Education at SMP Negeri 37 Bandar Lampung. The improvement was evident in both the cognitive domain and the affective dimension, including emotional engagement, self-confidence, and students' religious awareness throughout the learning process. This outcome addresses previous instructional challenges that were predominantly characterized by lecture based methods, which tended to render students passive and less motivated. The results further confirm that student-centered learning approaches foster more meaningful learning experiences and

promote higher levels of learning motivation compared to conventional instructional practices.

From a theoretical perspective, the effectiveness of the Learning Cycle 5E model integrated with Problem Based Learning (PBL) in this study is consistent with the findings of Muhammad et al. [22], which emphasize that active teacher–student interaction and direct engagement in the learning process are essential for increasing students' engagement and learning motivation. Nevertheless, this study offers a novel contribution as it is implemented within Islamic Religious Education and Character Education (PAI and Budi Pekerti), which possess distinctive characteristics compared to science subjects. PAI instruction is not solely oriented toward conceptual understanding but also toward character development and the internalization of Islamic values. Therefore, the observed improvement in learning motivation indicates that constructivist learning models can effectively strengthen Islamic character education in schools Husna & Supriyadi,Natasya Nurul Lathifa et al, [23].

The findings of this study also corroborate the results reported by Oktavia & Rini and Wardhani & Yusi Armini [24], which indicate that the Learning Cycle 5E model effectively fosters intrinsic motivation through students' active engagement at each stage of the learning process. In the context of this research, learning motivation was not merely influenced by external factors such as assignments or assessment, but emerged from students' internal awareness as they explored religious values through discussion and problem-solving activities. This represents a significant achievement,

[22] Muhammad, Fuadi, Arsyad Muhammad, Arafah Kaharuddin, and Asriyadin. "Pengaruh Model Learning Cycle 5E Terhadap Motivasi Belajar Dan Hasil Belajar Fisika Peserta Didik SMA Negeri 2 Woha Bima." *Jurnal Pendidikan Mipa* 10, no. 2 (2020). https://doi.org/10.37630/jpm.v10i2.387.

[23]Husna, Khamila, and Supriyadi Supriyadi. "Peranan Manajeman Media Pembelajaran Untuk Meningkatkan Motivasi Belajar Siswa." *AL-MIKRAJ Jurnal Studi Islam Dan Humaniora (E-ISSN 2745-4584)* 4, no. 1 (2023), 981–90. https://doi.org/10.37680/almikraj.v4i1.4273.

[24] Oktavia, Widia Dina, and Endah Febri Setiya Rini. "The Relationship of Motivation and Physics Learning Outcomes Using the Learning Cycle 5E Model." *EduFisika: Jurnal Pendidikan Fisika* 9, no. 1 (2024), 81–87. https://doi.org/10.59052/edufisika.v9i1.29642.

as intrinsic motivation has a stronger and more sustainable impact on long-term learning success Nurfadhilah et al., [25],Yunita, [26].

Previous studies conducted by Akip & Janna [27], Muryadi et al., and Nada & Nisa' [28] have demonstrated the effectiveness of the Learning Cycle 5E model in improving learning outcomes and student motivation in science and mathematics subjects. However, these studies did not specifically integrate the Learning Cycle 5E model with a Problem-Based Learning approach within Islamic Religious Education (PAI). The novelty of this study lies in the integration of these two approaches, enabling students not only to achieve conceptual understanding but also to connect Islamic values with real-life problems in a reflective and practical manner [29].

Furthermore, the effectiveness of the Learning Cycle 5E model integrated with Problem Based Learning (PBL) is reflected in the transformation of classroom dynamics into a more active and interactive learning environment. Students demonstrated greater confidence in expressing opinions, engaging in discussions, and independently presenting their ideas and findings. This condition contrasts with previous learning practices that tended to be passive due to teacher-dominated instruction. These findings support constructivist theory, which emphasizes that knowledge is constructed through meaningful learning experiences and active social interaction throughout the learning process.

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The implications of this study provide practical benefits for teachers, schools, and students. Teachers gain empirical evidence that the implementation of innovative instructional models can significantly enhance students' motivation and engagement. Schools obtain a scientific foundation to promote learning innovations that are more aligned with the needs of contemporary learners. Meanwhile, students experience a more enjoyable, collaborative, and meaningful learning process, which fosters greater active participation during classroom activities.

Ultimately, the findings of this study extend the scholarly discourse on the effectiveness of the Learning Cycle 5E model integrated with Problem Based Learning (PBL), particularly in enhancing learning motivation in Islamic Religious Education and Character Education at the junior secondary level. While previous studies have largely emphasized improvements in cognitive learning outcomes, this research highlights the significance of affective dimensions, including students' learning motivation and emotional engagement. This novelty is expected to serve as a valuable reference for future research in developing innovative instructional strategies that enhance academic achievement while simultaneously fostering students' character development in a comprehensive manner.

CONCLUSION

The conclusion of this study indicates that the Learning Cycle 5E instructional model integrated with Problem Based Learning (PBL) is effective in enhancing students' learning motivation in Islamic Religious Education and Character Education at SMP Negeri 37 Bandar Lampung. This is evidenced by a statistically significant variation in learning motivation between the experimental and control groups. The instructional model successfully promotes active student engagement, fosters intrinsic motivation, and strengthens affective dimensions as well as students' religious attitudes, thereby making it a viable student-centered instructional alternative.

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