



Enhancing Moral Understanding and Character Development in Higher Education: Insight from Skinner Learning Theory

Dimiyati Sajari¹, Gelar Dwirahayu^{2*}, Muhammad Umudee³

^{1,2} UIN Syarif Hidayatullah Jakarta, Indonesia

³Princess of Naradhiwas University, Thailand

¹dimiyati@uinjkt.ac.id, ²gelar.dwirahayu@uinjkt.ac.id,

³muhammad.u@pnu.ac.th

Abstract

Keywords:

Moral Education;
Skinner;
Operant
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Learning
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B.F. Skinner, as a behaviourist, emphasized that Learning is shaped more by observable behaviour than by cognition alone. This study explores the application of Skinner's theory in moral education, aiming to enhance students' attitudes and character development. Conducted during the odd semester of the 2022 to 2025 academic year, the research employed a case study involving 154 undergraduate students from the Mathematics Education program at UIN Syarif Hidayatullah Jakarta. Findings indicate that applying Skinner's principles significantly improved students' cognitive understanding of moral concepts, as reflected in an average score of 82%. More notably, students demonstrated positive behavioural changes through presentations and individual assignments, including reflective activities that encouraged them to connect moral theory with personal conduct. The novelty of this study lies in extending Skinner's theory—traditionally applied to cognitive Learning—into the domain of moral education, highlighting its relevance for character formation in higher education. While current instructional practices remain predominantly cognitive, this research advocates for a more balanced approach that integrates behaviour-focused strategies to foster moral development. The findings affirm that Skinner's theory remains a viable pedagogical framework for cultivating both understanding and ethical behaviour among university students.

Abstrak:

Kata Kunci:

Pendidikan Akhlak;
Skinner;
Operant Conditioning;
Teori Belajar;
Behaviorisme;
Pendidikan;

J.F. Skinner, tokoh kunci dalam teori pembelajaran behavioris, menekankan bahwa pembelajaran lebih dibentuk oleh perilaku yang dapat diamati daripada oleh kognisi saja. Studi ini mengeksplorasi penerapan teori Skinner dalam pendidikan moral, yang bertujuan untuk meningkatkan sikap dan pengembangan karakter siswa. Dilaksanakan pada semester ganjil tahun akademik 2022 sampai 2025, penelitian ini menggunakan studi kasus yang melibatkan 154 mahasiswa sarjana

program Pendidikan Matematika UIN Syarif Hidayatullah Jakarta. Temuan menunjukkan bahwa menerapkan prinsip-prinsip Skinner secara signifikan meningkatkan pemahaman kognitif siswa tentang konsep moral, seperti yang tercermin dalam skor rata-rata 82%. Lebih khusus lagi, siswa menunjukkan perubahan perilaku positif melalui presentasi dan tugas individu, termasuk kegiatan reflektif yang mendorong mereka untuk menghubungkan teori moral dengan perilaku pribadi. Kebaruan dari penelitian ini terletak pada perluasan teori Skinner—yang secara tradisional diterapkan pada pembelajaran kognitif—ke dalam domain pendidikan moral, menyoroti relevansinya untuk pembentukan karakter dalam pendidikan tinggi. Sementara praktik instruksional saat ini tetap didominasi kognitif, penelitian ini menganjurkan pendekatan yang lebih seimbang yang mengintegrasikan strategi yang berfokus pada perilaku untuk mendorong perkembangan moral. Temuan ini menegaskan bahwa teori Skinner tetap menjadi kerangka pedagogis yang layak untuk menumbuhkan pemahaman dan perilaku etis di antara mahasiswa.

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1. Introduction

The Ministry of National Education in Indonesia has established National Education Standards to guide the implementation of educational practices nationwide ¹. Among these are the Content Standards and Learning Outcomes, which serve as foundational references for curriculum development and instructional planning. Content Standards define the essential competencies students must acquire across subjects, while Learning Outcomes articulate the expected achievements upon completion of the learning process.

Together, these standards emphasize a holistic approach to student development by targeting three core domains: cognitive, psychomotor, and affective ². The cognitive domain focuses on conceptual understanding and intellectual engagement; the psychomotor domain addresses practical skills and performance; and the affective domain encompasses attitudes, values, and character formation. This tripartite framework reflects Indonesia's commitment to fostering well-rounded learners who not only master academic content but also demonstrate ethical behavior and practical competence.

Learning outcomes are conceptually aligned with four major learning theories: behaviourism, cognitivism, constructivism, and humanism. From the behaviourist perspective, Learning is not primarily defined by intelligence or cognitive processes, but rather by observable changes in behaviour and attitudes. Behaviourism posits that while cognitive knowledge can be individually acquired and memorized, meaningful Learning is demonstrated through

¹ Government Regulation, "Government Regulation Number 4 of 2022 Concerning the Standards of Higher Education," 2022.

² Kiki Melita Andriani, Maemonah, and Rz. Ricky Satria Wiranata, "Penerapan Teori Belajar Behavioristik B. F. Skinner Dalam Pembelajaran : Studi Analisis Terhadap Artikel Jurnal Terindeks Sinta Tahun 2014 - 2020," *SALIHA: Jurnal Pendidikan & Agama Islam* 5, no. 1 (2022): 78–91, <https://doi.org/10.54396/saliha.v5i1.263>.

behavioural expressions—particularly in a student's ability to engage and function effectively within social contexts³.

J.F. Skinner, a prominent figure in behaviourist learning theory, introduced the concept of Operant Conditioning, which posits that behavioural change occurs when the learning environment is systematically reinforced to support desired outcomes. In Skinner's framework, attitude is considered the primary learning outcome, surpassing cognitive acquisition in significance. To facilitate behavioural transformation, the educational environment must be deliberately structured and reinforced to foster positive behavioural responses. Skinner's theory underscores that Learning is not merely the transmission of knowledge, but a comprehensive process encompassing the development of attitudes and skills. Educators play a critical role in designing instructional experiences that condition the environment and apply reinforcement strategies, thereby enhancing students' behavioural engagement and overall learning success.⁴

Morality constitutes a fundamental dimension of human life, reflecting an individual's ethical principles and behavioural patterns that govern interactions with others and the surrounding environment⁵. For Muslims in particular, cultivating noble character is not only a social imperative but also a spiritual pursuit. Upholding virtuous morals is believed to strengthen one's relationship with Allah SWT and serve as a pathway to attaining well-being and fulfilment both in this life and in the hereafter⁶.

Moral education plays a pivotal role in strengthening individual faith and shaping ethical behaviour. As noted by Husna⁷, the moral foundation of the younger generation must be resilient; otherwise, it risks being undermined by rapid societal changes, leading to a loss of identity. Within the context of madrasah education, moral instruction offers students meaningful opportunities for social and spiritual introspection⁸, fostering self-awareness and ethical reflection. The cultivation of social behaviour and spiritual attitudes is essential for enhancing human morality. Furthermore, Indah's research indicates a strong positive correlation—exceeding 70%—between moral education and students'

³ Khairan Muhammad Arif, "Revisiting Behaviourism Theory of Learning: An Outline with Islamic Education," *TSAQAFAH* 18, no. 2 (2022): 291, <https://doi.org/10.21111/tsaqafah.v18i2.8554>.

⁴ Zaenal Arifin and Humaedah Humaedah, "Application of Theory Operant Conditioning BF Skinner's in PAI Learning," *Journal of Contemporary Islamic Education* 1, no. 2 (2021): 101–10, <https://doi.org/10.25217/cie.v1i2.1602>; B F Skinner and C George Boeree, "B. F. SKINNER [1904 – 1990] Personality Theories," *Biography An Interdisciplinary Quarterly*, 2006, 1–8, <https://doi.org/https://webpace.ship.edu/cgboer/Skinner.pdf>.

⁵ Iqbal Abdul Kholiq, Marhamah Marhamah, and Ummu Sulaim, "Penanaman Nilai-Nilai Akhlak Mahmudah (Akhlak Terpuji) Di SMA Negeri 2 Jakarta," *MARAS: Jurnal Penelitian Multidisiplin* 2, no. 1 (2024): 253–60, <https://doi.org/10.60126/maras.v2i1.157>.

⁶ Venny Delviany et al., "Pendidikan Akhlak Dalam Perspektif Imam Al-Ghazali," *Counselia; Jurnal Bimbingan Konseling Pendidikan Islam* 5, no. 2 (2024): 357–70, <https://doi.org/10.31943/counselia.v5i2.139>.

⁷ "Building A Muslim Worldview Through Islamic Education in The Middle of Globalization," *Nazhruna: Jurnal Pendidikan Islam* 6, no. 1 (2023): 46–59, <https://doi.org/10.31538/nzh.v6i1.2622>.

⁸ Miswar Rangkuti et al., "Strengthening Akhlak Tasawuf Material in The Subject of Akidah Akhlak in Madrasah," *BIDAYAH: STUDI ILMU-ILMU KEISLAMAN* 15, no. 1 (July 11, 2024): 96–107, <https://doi.org/10.47498/bidayah.v15i1.3086>.

behavioural development, underscoring its significant influence on character formation and everyday conduct ⁹.

Moral education, as an integral component of formal education, requires students to develop competencies across the cognitive, affective, and psychomotor domains. The educators must design moral instruction not only to enhance students' conceptual understanding but also to cultivate ethical attitudes and behavioural consistency. While cognitive development can be achieved through instructional delivery, the affective and psychomotor aspects necessitate repeated practice and reinforcement of moral behaviours. According to behaviourist principles, reinforcement strengthens behavioural responses; without it, desired behaviours may diminish over time, making them more difficult to re-establish. Therefore, sustained reinforcement is essential to ensure the internalization and continuity of moral conduct ¹⁰.

Previous research has highlighted the critical role of moral education in shaping students' character and ethical behaviour. Hamruni ¹¹ emphasizes that moral education is foundational to character formation and begins within the family environment. Oktavia¹², and Rochayati ¹³ explored the development of tolerance-based attitudes among elementary students, while Borges ¹⁴ examined elementary school teachers' knowledge, attitudes, and behaviours to assess the sustainability of moral instruction. Lubis ¹⁵ found that children of the digital generation exhibit low levels of social concern, with only 25% demonstrating awareness of social harmonization issues, indicating a lack of engagement with their social environment.

Parallel to this, studies have also explored the application of J.F. Skinner's behaviourist theory in educational settings. Arifin ¹⁶ and Antoni ¹⁷ implemented Skinner's Operant Conditioning model in Islamic religious education for elementary students; Andriani applied it in Arabic language instruction; and Mahmud ¹⁸, Muid ¹⁹ and Yahiji ²⁰ utilized it in moral education. These studies

⁹ Indah Gita Cahyaningrum, Nailil Muna Sholihah, and Ahmad Farid, "Pengaruh Pembelajaran Mata Pelajaran Akidah Akhlak Terhadap Akhlak Siswa Kelas V Madrasah Ibtidaiyah Swasta Danunnajah Cipining Bogor," *Journal of International Multidisciplinary Research* 2, no. 9 (2024): 89–104, <https://doi.org/10.62504/jimr872>.

¹⁰ Arifin and Humaedah, "Application of Theory Operant Conditioning BF Skinner's in PAI Learning."

¹¹ *Teori Belajar Behaviorisme Dalam Perspektif Pemikiran Tokoh-Tokohnya* (Yogyakarta: UIN Sunan Kalijaga Yogyakarta, 2021).

¹² "Penerapan Teori Belajar Behavioristik B.F Skinner Dalam Memotivasi Siswa Pada Pembelajaran PAI Di Sekolah Dasar," *Instructional Development Journal* 5, no. 1 (2022): 53–61, <https://ejournal.uin-suska.ac.id/index.php/IDJ/article/view/19285/8183>.

¹³ "Pendidikan Sikap Toleransi Beragama Peserta Didik Di Sekolah Menengah Pertama Di Kota Tangerang," *Uli Albab: Jurnal Ilmiah Multidisiplin* 2, no. 11 (2023): 5530–37, <https://doi.org/https://ulilalbabinstitute.id/index.php/JIM/article/view/2433>.

¹⁴ "Knowledge, Attitudes and Behaviours Concerning Sustainable Development: A Study among Prospective Elementary Teachers," *Higher Education Studies* 9, no. 2 (2019): 22, <https://doi.org/10.5539/hes.v9n2p22>.

¹⁵ "Exploring the Attitudes of the Digital Age Academic Community in Responding to Issues in Social Harmonization Education at State Islamic University," *AL-ISHLAH: Jurnal Pendidikan* 15, no. 4 (2023), <https://doi.org/10.35445/alishlah.v15i4.2929>.

¹⁶ "Application of Theory Operant Conditioning BF Skinner's in PAI Learning."

¹⁷ "Implementasi Teori Operant Conditioning B.F. Skinner Dalam Pembelajaran Pendidikan Agama Islam," *Counselia: Jurnal Bimbingan Konseling Pendidikan Islam* 5, no. 1 (2024): 181–91, <https://doi.org/10.31943/counselia.v5i1.84>.

¹⁸ "Moral Education in the Family and the Phenomenon of Infidelity," *Tafkir:*

consistently show that instructional design based on Skinner's principles emphasizes not only cognitive achievement but also the reinforcement and habituation of moral attitudes. This dual focus underscores the relevance of behaviourist strategies in fostering ethical development alongside academic Learning. Indeed, several studies have applied Howard Gardner's theory of multiple intelligences within the broader context of Islamic education ²¹.

Moral Education (Akhlak) is a compulsory course that reflects the university's distinctive commitment to character formation rooted in Islamic values. Morality encompasses an individual's internal dispositions, traits, and capacities, which influence behaviour that becomes habitual and automatic, requiring neither conscious deliberation nor external prompting. In Islamic teachings, morality holds intrinsic significance, integrating both internal states and outward actions, and is grounded in the belief that behaviour is intimately linked to the soul's essence and intentions ²².

Character development is shaped not only within the home and school but also through broader social environments ²³. The Islamic worldview offers a comprehensive and distinct perspective on fundamental concepts such as divinity, revelation, creation, human psychology, knowledge, religion, freedom, values, virtues, and happiness—differentiating it from other religious and philosophical systems ²⁴.

The research is grounded in J.F. Skinner's behaviourist theory, particularly his concept of Operant Conditioning, which views learning as a process of behavioural change shaped by environmental stimuli. Skinner's learning principles—reinforcement, punishment, shaping, extinction, and antecedents—are central to this study ²⁵. Positive reinforcement (e.g., praise or rewards) and negative reinforcement (e.g., repetitive practice) are emphasized as tools to

Interdisciplinary Journal of Islamic Education 5, no. 3 (2024): 400–413, <https://doi.org/10.31538/tjje.v5i3.1111>.

¹⁹ "Character Development Strategy for Tolerance in Islamic Boarding Schools," *Tafkir: Interdisciplinary Journal of Islamic Education* 5, no. 2 (2024): 184–201, <https://doi.org/10.31538/tjje.v5i2.833>.

²⁰ "The Model of Reflective Moral Inquiry Design on the PAI Learning," *Al-Ulum* 19, no. 2 (2019): 506–27, <https://doi.org/10.30603/au.v19i2.1109>.

²¹ Salami Mahmud et al., "Integrating Howard Gardner's Multiple Intelligences in Islamic Education: A Systematic Review of Indonesian Practices," *Jurnal Ilmiah Peuradeun* 12, no. 3 (2024), <https://doi.org/https://doi.org/10.26811/peuradeun.v12i3.1215>.

²² Hamruni et al., *Teori Belajar Behaviorisme Dalam Perspektif Pemikiran Tokoh-Tokohnya*.

²³ Kholiq, Marhamah, and Sulaim, "Penanaman Nilai-Nilai Akhlak Mahmudah (Akhlak Terpuji) Di SMA Negeri 2 Jakarta."

²⁴ Husna et al., "Building A Muslim Worldview Through Islamic Education in The Middle of Globalization."

²⁵ Hamruni et al., *Teori Belajar Behaviorisme Dalam Perspektif Pemikiran Tokoh-Tokohnya*; Antoni, "Implementasi Teori Operant Conditioning B.F. Skinner Dalam Pembelajaran Pendidikan Agama Islam"; Santy Afriana, Naila Husna Ramadhana, and Yani Pratiwi, "Analisis Teori Operant Conditioning B.F Skinner Terhadap Kemandirian Belajar Peserta Didik Selama Masa Pandemi Covid-19," *Modeling: Jurnal Program Studi PGM* 9, no. 3 (2022): 1–16, <https://doi.org/https://jurnal.stitnualhikmah.ac.id/index.php/modeling/article/view/951>; Skinner and Boeree, "B. F. SKINNER [1904 – 1990] Personality Theories"; Andriani, Maemonah, and Wiranata, "Penerapan Teori Belajar Behavioristik B. F. Skinner Dalam Pembelajaran: Studi Analisis Terhadap Artikel Jurnal Terindeks Sinta Tahun 2014 - 2020."

strengthen desired behaviours, while punishment is discouraged due to its adverse psychological effects²⁶²⁷.

This study adopts Skinner's six assumptions of operant conditioning and integrates the principle of learner independence, recognizing undergraduate students as autonomous individuals capable of self-regulation. The six foundational assumptions are²⁸:

1. Learning is defined as a change in behaviour, rather than the acquisition of memorized or purely cognitive content.
2. Behavioural change is functionally related to environmental events, meaning that Learning occurs as a response to specific stimuli within the learner's surroundings.
3. Behavioural changes must be physically manifested and observable within controlled settings to be considered valid indicators of Learning.
4. Only data obtained through experimental observation are considered valid, implying that behaviours occurring outside controlled conditions are not recognized as reliable sources of information.
5. Changes in individual behaviour serve as the primary data source for evaluating learning outcomes.
6. The dynamics of interaction between an individual and their environment are consistent across all living organisms, suggesting that the principles of behaviourism are universally applicable.

Furthermore, the researchers adopted Skinner's six principles of Operant Conditioning and integrated the concept of learner independence into the instructional design of moral education lectures. Undergraduate students are developmentally prepared to engage in independent thinking and self-directed growth, which in turn influences their broader social environment. Indicators of learning independence include: (1) not relying on others, (2) demonstrating self-confidence, (3) exhibiting a sense of responsibility, (4) initiating actions independently, (5) maintaining discipline, and (6) exercising self-control (Afriana et al., 2022).

Moral education, therefore, must be carefully designed to foster not only understanding and appreciation of Islamic values but also their embodiment in daily behaviour through structured guidance, reinforcement, and habituation²⁹.

The Moral Education course at UIN Syarif Hidayatullah Jakarta is designed to: (1) analyze the concept of morality and its relationship to other branches of Islamic knowledge; (2) examine the application of moral values across diverse spheres of life; and (3) demonstrate independent, high-quality, and measurable student performance in moral education practices.

This study offers a novel contribution by systematically analyzing the patterns of student character development as outlined in the lesson plan of the Moral Education course at UIN Syarif Hidayatullah Jakarta—an area that remains

²⁶ Eyra Aisyah Jasmine et al., "Penerapan Teori Belajar B.F Skinner Dalam Mata Pembelajaran PAI," *El-Mujtama: Jurnal Pengabdian Masyarakat* 4, no. 1 (2023): 62–72, <https://doi.org/10.47467/elmujtama.v4i1.3160>.

²⁷ Arifin and Humaedah, "Application of Theory Operant Conditioning BF Skinner's in PAI Learning."

²⁸ Rifnon Zaini, "Studi Atas Pemikiran B.F. Skinner Tentang Belajar," *Jurnal Pendidikan Dan Pembelajaran Dasar* 1, no. 1 (2022): 118–29, <https://doi.org/10.24042/terampil.v1i1.1309>.

²⁹ Skinner and Boeree, "B. F. SKINNER [1904 – 1990] Personality Theories"; Muid, Shohib, and Askarullah, "Character Development Strategy for Tolerance in Islamic Boarding Schools."

underexplored in existing literature. The novelty of this study lies in extending Skinner's theory—traditionally applied to cognitive Learning—into the domain of moral education, highlighting its relevance for character formation in higher education. The findings are expected to enrich the field of Islamic education, particularly in strengthening character education at the tertiary level. Practically, the study provides a pedagogical reference for moral education lecturers at Islamic universities in Indonesia, emphasizing the development of not only cognitive knowledge but also affective and behavioral competencies.

The study aims to investigate the application of Skinner's Operant Conditioning theory in the context of moral education at the university. Conducted by a team of lecturers specializing in Moral Education and Learning Theory, the research examines how reinforcement-based strategies can foster ethical behaviour and positive attitudes among undergraduate students. Moral education, in this context, encompasses students' conduct in personal, academic, and social environments.

Based on the explanation, the research questions leading in this article are to what extent does instruction based on Skinner's theory enhance students' conceptual understanding and character development in Moral Education and how can Skinner's Operant Conditioning theory be applied to the Moral Education course to strengthen student character development in higher education?

2. Methods

The research method used is a case study. Case study research is interpreted as applying Skinner's theory in moral education to improve undergraduate students' knowledge of the concept of morality and change their behaviour regarding the application of moral concepts in daily life³⁰. Undergraduate students are encouraged to change their behaviour through independent Learning, which involves developing self-reliance, confidence, taking on a sense of responsibility, acting on their own initiative, maintaining a disciplined approach, and exercising self-control.

The stages of moral education learning that apply Skinner's theory are: 1) at the beginning, the lecturer explains the general overview of the concept of moral education and explains the definition of morals, ethics, and their implementation in daily life. 2) The next stage, participants are divided into small groups, and they are given the task to prepare papers on themes related to the concept of morals and the implementation of one's morals, then present the material in front of the class together with the lecturer as a moderator. 3) Discussion of material is carried out jointly between lecturers and students until the theme is complete. 4) After the teaching-learning process is finished, an assessment is carried out for students through cognitive tests and attitude assessments.

The research was conducted from 2022 to 2025, involving 154 students from the 1st-semester mathematics education study program who took moral education courses. The instruments used are document observation sheets, tests, and questionnaires. In this case, the observation sheet is used to assess students' cognitive aspects and attitudes during the lecture process in class. The cognitive aspect is carried out on the assignment documents collected by students, which consist of presentation design, material content, and final papers.

³⁰ Ruslan et al., "Environmental Care: The Strengthening Character Education Through Islamic Religious Education (IRE) Development," *Penamas* 37, no. 1 (2024): 116–30, <https://doi.org/10.31330/penamas.v37i1.791>.

Meanwhile, the attitude aspect is reflected in the ability to explain and participate in discussions. Tests are used to determine students' understanding of the material presented, specifically the concept of moral education, and changes in their behaviour after understanding this concept. The questionnaire reflects student behaviour based on the concept of morality.

Descriptive statistics of the data present data on formative, mid-test, and final tests. The aspects assessed for formative tasks included presence, attitude, and completion of each assigned task, as well as independent/structured tasks. Mid-test assessment is conducted through a description question test consisting of 4 questions. In the formative assessment, students are given a group paper assignment; each group presents their paper, and then the lecturer in charge of the course gives a discussion of the concept. After the discussion, each group member makes a new paper from various student perspectives. The paper that each individual improves will be the final assessment of the moral education course. The rubric of analysis for the mid-test and final test was carried out in Table 1 and 2:

Table 1. Rubric for Mid-test assessment

Interval	Interpretation of Answering Ability
$90 \leq x \leq 100$	Answer all questions correctly.
$80 \leq x < 90$	Answer all questions, but there is one question for which the answer is not exactly right (most of the questions are numbered three or four).
$70 \leq x < 80$	Answer all questions, but the answer number two is not exactly right.
$60 \leq x < 70$	Answer all questions, but the answers to questions one, two, three, or four are wrong and unrelated to the question.
$x < 60$	Answer all questions, and all the answers are wrong and unrelated to the question.

Table 2. Rubric for final-test assessment

Interval	Interpretation of Answering Ability
$90 \leq x \leq 100$	Students are improving the paper completely and perfectly.
$80 \leq x < 90$	Students corrected the paper completely, but it was not perfect.
$70 \leq x < 80$	Students corrected the paper completely, but it was not related to the theme.
$60 \leq x < 70$	Students corrected the paper, but it was incomplete and imperfect.
$x < 60$	Students are not making corrections to the article

Meanwhile, the attitude aspect is analyzed qualitatively to explain the results of applying Skinner's learning theory in the moral education subject.

3. Result and Discussion

This study aims to determine the effectiveness of implementing Skinner's learning theory to improve undergraduate students' understanding of concepts and attitudes, especially in moral education courses. Implementing Skinner's learning theory in the teaching-learning process is shown in the learning conditions created (operant conditional Learning) to support improving students' understanding of concepts and attitudes. Operant conditional Learning includes reinforcement, shaping, extinction, and antecedent. Meanwhile, punishment is not

used on the assumption that every student who attends the class is still expected to be able to get good results ³¹.

3.1 Data on Undergraduate students' understanding

As long as the teaching and learning assessment process for undergraduate students is divided into three: formative assessment, mid-test, and final exam, the cognitive abilities of undergraduate students are presented in Table 3.

Table 3. Descriptive Analysis of Students' Cognitive Ability

	Formatif	Mid-Test	Final-Test
Mean	79.70	81.98	80.79
95% Confidence Lower Bound	81.69	80.31	80.31
Interval for Mean Upper Bound	82.27	81.28	81.28
5% Trimmed Mean	79.69	82.00	80.85
Median	80.00	82.00	81.00
Variance	.982	3.339	9.251
Std. Deviation	.991	1.827	3.041
Minimum	76	77	74
Maximum	84	86	87
Range	8	9	13

Source: the data collection in teaching learning process

Table 3 shows descriptive data on students' cognitive abilities in moral education courses. It appears that there are 154 subjects analyzed and all of them are valid. The average for the formative score = 79.70, the average for the mid-test = 81.98, and the average for the final exam = 80.79. Formative assessment includes various aspects of assessment, such as attendance, attitude, completing each given task, and Independent/Structured assignments. This score shows that undergraduate students are good enough to present material, but there are many mistakes and limitations. Therefore, it needs to be straightened out by lecturers. The average of mid-test = 81,98. It shows that undergraduate students can answer questions about the concept of morality well.

The average of the final exam = 80,79. It shows that the students can explain moral concepts and, at the same time, provide examples of behaviour presented in individual papers, but the explanations and examples they offer are similar to the discussion; they have not shown significant development in their own ideas.

³¹ Antoni, "Implementasi Teori Operant Conditioning B.F. Skinner Dalam Pembelajaran Pendidikan Agama Islam."

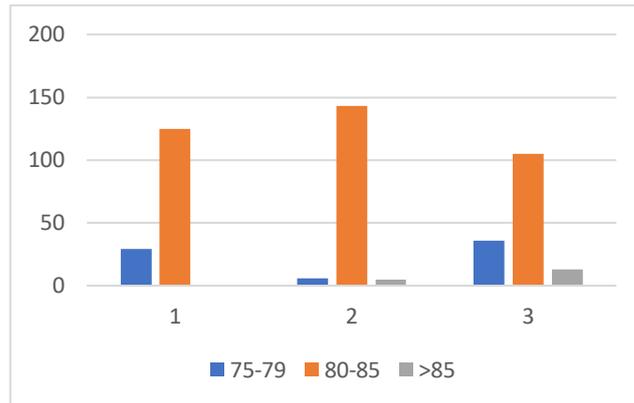


Figure 1. Data on undergraduate students' understanding of moral education based on the category Source: the data collection along teaching learning process

Figure 1 shows the distribution of students' ability in moral education courses; it appears that the data are divided into only 3 groups: 75-79, 80-85, and above 85. We can see that the data is grouped around the middle, 80-85. It can be said that students' abilities are classified as good, or, in other words, they have mastered the concept of good moral education.

3.2 Implementation of Skinner's Theory

The learning process that implemented Skinner's theory lasted for 13 weeks. The lecture begins with reinforcement, which presents the concept of morality. Reinforcement was carried out to strengthen and explain *akhlak*, ethics, morals, *susila*, and *budi pekerti*, which will be very useful for undergraduate students; therefore, they will become human beings with noble character. In the beginning, the teaching-learning process emphasizes the development of cognitive abilities.

But, in this research, the discussion will be limited to four sub-materials, namely: 1) Morals to Rosululloh, Parents, and Yourself; 2) Morals in Worship; 3) Morals in the teaching and learning process; and 4) Morals in the social life. These four materials are closely related to individual behaviour and are very important to explore further.



Figure 2. The example of presentation material Source: The collection of the students' tasks

Grouping is the formation of new behaviours. Grouping is carried out by assigning group papers, presentations, questions and answers, and finally, by creating papers privately as a result of class discussions. One of the morals is not to receive calls or play on mobile phones, except for calls from family and other parties and this rule is applied to both undergraduate students and lecturers.



Figure 3. Presentation and discussion process
Source: private collection

After the lecture, the undergraduate students' presentation on types of morals and their implementation in daily life. Table 4 is an example of morality explained by undergraduate students.

Table 4. Attitude human related to *akhlak*

No	Behaviour/Manners	Examples of Behaviour
1	<i>Akhlak</i> to Rasulallah (profit Muhammad)	<ul style="list-style-type: none"> • Confirming that Muhammad bin Abdullah was Allah SWT's last Prophet and messenger. • Justifying and following the teachings of the Prophet Muhammad. • Imitating the life of the Prophet Muhammad • Reciting <i>shalawat</i> in which the name of Muhammad is mentioned. • Praise the Prophet of Muhammad
2	<i>Akhlak</i> to parents ³²	<ul style="list-style-type: none"> • Speak kindly and gently to parents. • Loving and devoted to parents. • Regularly stay in touch (<i>silaturahmi</i>) with parents. • Ask for parents' permission, prayers, and blessings. • Do not denounce, curse, or hurt parents. • Calling politely to parents. • Be honest with your parents. • Obey parental orders. • Avoid pouting at parents.
3	<i>Akhlak</i> to yourself ³³	<ul style="list-style-type: none"> • Maintain the cleanliness and health of the physical and spiritual. • Eating food and drinking water that is halal and good (<i>thayyiba</i>). • Wear good Islamic clothes (covering the <i>aurat</i>). • Adorn yourself with knowledge and piety (<i>taqwa</i>). • Abstaining from sin and vices. • <i>Bermujahadah</i> (fighting against lust).

³² Mahmud et al., "Moral Education in the Family and the Phenomenon of Infidelity."

³³ Sartika and Aan Setiawan, "The Role of Islamic Education Teachers as A Model in Improving Social Attitude of Students at SMP Negeri 3 Pamboang Majene Regency," *International Journal Conference* 1, no. 1 (2023): 53–58, <https://doi.org/10.46870/iceil.v1i1.487>.

No	Behaviour/Manners	Examples of Behaviour
4	<i>Akhlak</i> in worship (Sholat)	<ul style="list-style-type: none"> • Be wise in defending the truth. • Take a shower to clean yourself. • Perform ablution (<i>wudhu</i>) or take a bath to purify oneself from hadast. • Purifying in the absence of water (<i>tayamum</i>), therefore, you never leave prayer. • Maintain time for prayer (<i>fardhu and sunnah</i>). • Purify yourself, your clothes, and your prayer places from uncleanness (<i>najis</i>). • Wear the best dress when going to the mosque. • Prayers with seriousness (<i>khusyu</i>). • Feel sorry for sins and vices, and repent (<i>taubat</i>) to Allah SWT. • Pray and remember Allah SWT (<i>dzikir</i>).
5	<i>Akhlak</i> in worship (Zakat)	<ul style="list-style-type: none"> • Intention to pay <i>zakat, infak</i> and/or <i>shadaqah</i> with full sincerity is solely for Allah SWT. • Do not remember <i>zakat, infak, and/or shadaqah</i> that have been given. • Issuing <i>zakat</i> openly, but distributing secretly to avoid arrogance (<i>riya'</i>). • Issuing <i>zakat</i> based on haul and nisab is prioritized for the poor (<i>fakir and miskin</i>). • Distributing <i>zakat, infak</i> and/or <i>shodaqah</i> according to the priority scale in the Qur'an: parents, close family, orphans, the poor people and <i>Ibn Sabil</i>.
6	<i>Akhlak</i> in the teaching-learning process ³⁴	<ul style="list-style-type: none"> • Pray before studying. • Intention is heartfelt to learn. • Do not be proud or arrogant. • Respect and be polite to lecturers, and greet them when you meet. • Learn with patience and never give up. • Stay away from worldly pleasures, 'forget' your hometown, and focus on science. • Talk a tief in front of lecturers and do not ask if it has not been allowed. • Do not deny the lecturer by showing that he knows more than the lecturer. • Avoid listening to other people's disputes. • Respect for knowledge and experts. • Decorate his mind with useful knowledge. • Familiarize ourselves with purity (<i>wudhu</i>).

³⁴ Muid, Shohib, and Askarullah, "Character Development Strategy for Tolerance in Islamic Boarding Schools"; Sartika and Aan Setiawan, "The Role of Islamic Education Teachers as A Model in Improving Social Attitude of Students at SMP Negeri 3 Pamboang Majene Regency"; Juliani Yani Aprilia and Robi'ah, "Konsep Pendidikan Akhlak Dalam Buku Yang 'Yang Hilang Dari Kita: Akhlak' Karya M.Quraish Shihab," *Akademika: Jurnal Keagamaan Dan Pendidikan* 19, no. 2 (2024): 156–66, <https://doi.org/10.56633/jkp.v19i2.598>.

No	Behaviour/Manners	Examples of Behaviour
7	<i>Akhlak</i> in social life and environment (fellow Muslim) ³⁵	<ul style="list-style-type: none"> • Say <i>assalamualaikum</i> when you meet. • Maintaining good relations and friendship. • Fulfil the invitation. • Give a piece of advice if requested. • Saying the <i>tasymith</i>. When the student sneezes, he says <i>hamdalah</i> (Alhamdulillah, all praise be to Allah), and the other students who hear him pray say, "<i>Yarhamuka Allah</i>" (may Allah bless you). Students who sneeze alternately pray: "<i>Yahdikumu Allah wa yushlihu balakum</i>" (May Allah guide you and improve your affairs). • visit when someone is sick. • Mourning and delivering if someone dies. • Loving, helping each other, and easing the burden of fellow Muslims. • Cover up others' disgrace, pray for kindness, be friendly, and don't be arrogant.
8	<i>Akhlak</i> in social life and environment (fellow non-Muslims) ³⁶	<ul style="list-style-type: none"> • Respect for non-Muslim beliefs • Interact well with non-Muslims in the field of <i>muamalah</i> and social activities. • Help each other and empathize. • Respect and tolerate the holidays of other religions.

Extinction is the process of slowly reducing or eliminating reinforcement. Therefore, in the end, the behaviour that occurs in students is habituation, not the behaviour of encouragement. In this study, extinction is carried out by reminding/reflecting on the morals they uphold, especially those related to Allah SWT, even though Hasan's research shows that by mastering metaphysics, we will know Allah better³⁷. Metaphysics seeks knowledge about everything from the nature of the entire universe to that of the human mind. To know undergraduate students' *extinction*, the lecturer gave a task to write, "What sins do students commit in one day from waking up to going back to sleep?". This is intended to see how the relationship between daily life and their *akhlak* is³⁸.

The results of the review from the student notes are presented as follows:

1. Reading the prayer of thanksgiving after waking up from the sleep is sunnah, but morally/*akhlak*, being grateful is obligatory (*fardhu*)
2. Praying together (*jamaah*) in the mosque is mandatory for men. If he prays five times alone at home, then he is guilty because he is not praying together

³⁵ M.Rohimin, S.Sagaf, and Muhammad Fadhil, "Islamic Religious Education Social Competence of Teachers in Increasing Students' Tolerant Attitudes: Qualitative Study in State High Schools of Jambi City," *International Journal of Islamic Thought and Humanities* 3, no. 1 (2024): 167–76, <https://doi.org/10.54298/ijith.v3i1.211>.

³⁶ M.Rohimin, S.Sagaf, and Fadhil.

³⁷ Hasan Al-Asy'ari, Yongki Sutoyo, and Aldy Pradhana, "Al-Ghazâlî's Concept of Causality and Quantum Physics: Finding a Point of Relevance," *TSAQAFAH* 18, no. 2 (2022): 189, <https://doi.org/10.21111/tsaqafah.v18i2.8268>.

³⁸ Fabian Gunnars, "Exploring Behaviorism: A Networked (Re)Integration," in *Proceedings of the International Conference on Networked Learning*, vol. 12, 2024, 312–18, <https://doi.org/10.54337/nlc.v12.8685>.

- in the mosque; not a sin because he does not pray five times (his prayer is still valid) but Rasulullah and His companions never give it as example.
3. Before leaving for campus, don't be angry or irritated with your parents. If this is done, then it is a sin against the parents.³⁹
 4. Riding a motorcycle on the road recklessly, causing harm to others or not. If it is done, then the act is considered a sin against others.
 5. Arriving at the campus, thankful (*syukur*) or not. For example, we say *Alhamdulillah* when we arrive. If not, then we are not thankful to Allah SWT. Being grateful to Allah SWT is mandatory.
 6. Entering the class by saying *assalamualaikum* or not.
 7. Prioritizing *zhuhur* or *asar* prayer on campus before going home.
 8. Thanking Allah SWT before sleep for all the blessings that He bestowed upon one day of activity.

Antecedent is the process of changing behaviour by using instructions for conditioning. At this stage, the lecturer provides habits that can awaken their morals/*akhlak*, and the lecturer says greetings (*assalamualaikum*) when entering the class, then does the classroom conditioning. After everything is ready, the lecturer will say the second greeting (*assalamualaikum*) and invite students to read *basmallah* as the sign to begin the teaching-learning process. Then, at the end of the teaching-learning process, the lecturer habitually read the assembly's final prayer and the *Sayyidul Istighfar* prayer because the *Sayyidul Istighfar* prayer is believed to help undergraduate students become inhabitants of heaven in the future.

The *Sayyidul Istighfar* prayer

اللَّهُمَّ أَنْتَ رَبِّي، لَا إِلَهَ إِلَّا أَنْتَ، خَلَقْتَنِي وَأَنَا عَبْدُكَ، وَأَنَا عَلَى عَهْدِكَ وَوَعْدِكَ مَا اسْتَطَعْتُ،
أَعُوذُ بِكَ مِنْ شَرِّ مَا صَنَعْتُ، أَبُوءُ لَكَ بِنِعْمَتِكَ عَلَيَّ وَأَبُوءُ بِدُنْيِي، فَاعْفِرْ لِي؛ فَإِنَّهُ لَا يَغْفِرُ
الدُّنُوبَ إِلَّا أَنْتَ

Allāhumma anta rabbī, lā ilāha illā anta, khalaqtanī wa anā ‘abduka, wa anā ‘alā ‘ahdika wa wa’dika mastatha’tu, a’ūdzu bika min syarri mā shana’tu, abū’u laka binī’matika ‘alayya wa abū’u bidzanbī, faghfir lī, fa innahu lā yaghfirudz-dzunūba illā anta ("O Allah, You are my God. There is no God except You. You have created me, and I am Your servant. I hold tight to Your promises and covenants to the best of my ability. I take refuge in You from the evil I have done, confess Your favour to me, and confess my sins, so forgive me. Indeed, no one can forgive the sin of Your negligence").

The benefit of reading the *Sayyidul Istighfar* prayer in the morning, during the day, in the afternoon, and at night with full confidence is that the people will be included as the inhabitants of heaven.

After reading the *Sayyidul Istighfar* prayer, the class will be closed by read the *kafaratul majlis* prayer:

سُبْحَانَكَ اللَّهُمَّ وَبِحَمْدِكَ، أَشْهَدُ أَنْ لَا إِلَهَ إِلَّا أَنْتَ، أَسْتَغْفِرُكَ وَأَتُوبُ إِلَيْكَ

³⁹ Mahmud et al., "Moral Education in the Family and the Phenomenon of Infidelity."

Subhānaka Allāhumma wa bihamdika, asyhadu allā ilāha illā anta, astaghfiruka wa atūbu ilaika ("Most Holy of You, O Allah, and in praise of You, I testify that there is no God except You, and I ask You for forgiveness, and I repent of You").

Then, undergraduate students are invited to thank Allah by saying *hamdalah* and greetings (*assalamualaikum*) as a sign of the end of the lecture. Assisting lecturers in shaping and strengthening behaviour⁴⁰.

Based on the explanation of teaching-learning in moral education, the implementation of Skinner's theory shows that moral education alone is not enough to teach the concept; it must be evaluated through habituation. Morals are not only to be studied conceptually or memorized, but must be habituated. In line with Skinner emphasizes that habituation is important to develop the potential that students have. Moreover, this is related to morality.

4. Conclusion

The results of the study show that behaviour in teaching-learning is still essential. The success of student learning is not only shown in the cognitive aspect, but attitudes and behaviours are also essential in the habituation process. Thus, applying J.F. Skinner's theory in education is highly relevant for increasing students' understanding of the concept of morality and changes in students' attitudes/akhlak. Such as akhlak to the Prophet, akhlak to their parents, akhlak when they are learning, and akhlak to fellow humans.

However, the teaching-learning process of moral education is still dominated by conceptual understanding or cognitive aspects, while the implementation of morals or character has not been developed significantly.

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⁴⁰ Miftahul Ulum and Ahmad Fauzi, "Behaviorism Theory and Its Implications for Learning," *Journal of Insan Mulia Education* 1, no. 2 (2023): 53–57, <https://doi.org/10.59923/joinme.v1i2.41>.

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