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Developing and Validating a Halal Behavior Instructional Model: Integrating the Theory of Planned Behavior and Constructivist Pedagogy

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ABSTRACT

This study addresses the need for behavior-oriented instructional design in Islamic higher education by developing the Halal Behavior Instructional Model (HBIM), which integrates the Theory of Planned Behavior (TPB) and constructivist pedagogy to support halal behavior among university students. The study employed a Research and Development (R&D) approach guided by Backward Design. The development process included needs analysis, instructional design, product development, expert validation, revision, and limited classroom implementation. The HBIM connects TPB components with constructivist strategies by linking attitude with value exploration, subjective norm with social dialogue, perceived behavioral control with experiential learning and problem-solving, and behavioral intention with reflection and action planning. The study involved 133 undergraduate students in a one-group pretest–posttest effectiveness test and 115 students in the response evaluation. Expert validation showed that the developed teaching materials were very feasible in terms of content, instructional design, and language. Student responses were also very positive, with an overall mean score of 4.59. The effectiveness test showed a statistically significant improvement in students' halal behavior, with the mean score increasing from 37.34 in the pretest to 38.71 in the posttest, $t(132) = 2.208$, $p = 0.029$. However, the small effect size (Cohen's $dz = 0.19$) and low N-Gain score (0.18) indicate that the magnitude of behavioral change remained limited. These findings suggest that HBIM can initiate halal behavior formation through contextual cases, discussion, reflection, self-evaluation, and action planning, although sustained reinforcement is needed to strengthen long-term behavioral consistency.

Keywords
Constructivism
Halal Behavior
Instructional Design
Islamic Education
Theory of Planned Behavior

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Introduction

The concept of halal in contemporary Muslim life extends beyond dietary regulations to encompass a comprehensive framework of behavior, including consumption patterns, social interactions, and ethical decision-making [1], [2]. In the context of globalization and digital transformation, Muslim university students face increasingly complex challenges in maintaining halal-oriented behaviors, particularly under the influence of digital media and social environments [3]. Previous studies indicate that knowledge of Islamic principles does not necessarily lead to consistent behavioral practice, highlighting a gap between cognitive understanding and actual behavior [4], [5].

Islamic higher education institutions, particularly in Indonesia, play a crucial role in addressing this gap. The Al-Islam and Kemuhammadiyahan (AIK) curriculum implemented in Muhammadiyah universities is designed to integrate Islamic values into students' academic and personal development. At Universitas Muhammadiyah Sidoarjo, AIK courses are systematically structured across multiple levels to support students' religious understanding. However, needs analysis reveals that current AIK instruction remains predominantly cognitive, focusing on conceptual mastery rather than measurable behavioral outcomes [6].

This condition reflects a broader challenge in Islamic education, where the transmission of knowledge is often not accompanied by effective strategies for behavioral transformation. Lecture-based and teacher-centered approaches tend to limit student engagement in reflective and experiential learning processes that are essential for internalizing Islamic values into daily practices [7], [8], [9]. As a result, there remains a gap between what students know and how they act.

From a theoretical perspective, understanding and addressing this gap requires an integration of behavioral and pedagogical approaches. The Theory of Planned Behavior (TPB) provides a useful framework for explaining how behavior is formed through the interaction of attitude, subjective norm, and perceived behavioral control, which together shape behavioral intention [10], [11]. This model has been widely applied in halal-related contexts, particularly in explaining consumer behavior, where these factors significantly influence individuals' intentions and actions [5]. However, its application in instructional design, especially within Islamic education, remains relatively limited.

In parallel, constructivist learning theory offers a pedagogical perspective that emphasizes active knowledge construction through experience, reflection, and social interaction [12], [13]. In Islamic education, constructivist approaches are increasingly recognized as effective in supporting critical thinking, analytical skills, and the internalization of values. Studies have shown that student-centered and reflective learning strategies are more effective in promoting value internalization compared to traditional lecture-based approaches [14], [15], [16].

Recent studies in educational research highlight the importance of contextual, dialogic, and reflective learning approaches that connect knowledge with students' lived experiences and support gradual transformation through experience and problem-solving processes [17], [18]. In this sense, constructivist pedagogy does not weaken Islamic authority; rather, it facilitates deeper understanding of revealed teachings and supports their translation into consistent practice.

Although previous studies have shown the relevance of TPB in explaining halal-related behavior, most of them remain focused on predicting intention and behavior, especially in consumer contexts such as halal food purchasing and halal product selection. These studies explain how attitude, subjective norm, and perceived behavioral control shape halal-related decisions. However, they provide limited explanation of how these behavioral determinants can be translated into instructional processes in Islamic higher education.

Meanwhile, studies on constructivist pedagogy in Islamic education emphasize active, contextual, dialogic, and reflective learning as important strategies for connecting religious knowledge with students' lived experiences. However, these studies often do not explicitly address the psychological determinants that influence behavioral change, such as attitude, perceived social expectations, perceived control, and intention.

This study addresses this gap by developing and validating the Halal Behavior Instructional Model (HBIM), an instructional framework that integrates halal values, the Theory of Planned Behavior (TPB), and constructivist pedagogy. The model is designed to support the transformation of students' cognitive understanding of halal into measurable behavioral outcomes through reflection, intention formation, guided practice, and behavioral evaluation.

Material and Methods

This study employed a Research and Development (R&D) design to develop and evaluate instructional materials for supporting halal behavior among university students. The R&D design was selected because the study aimed to produce, validate, implement, and evaluate an instructional product in a real learning context [6], [19]. The study used a mixed-method approach by combining qualitative and quantitative data. Qualitative data were used

to explore instructional needs and obtain feedback on the developed materials, while quantitative data were used to assess product feasibility, student responses, and effectiveness.

The development process was guided by the Backward Design framework. In this study, Backward Design was operationalized by aligning three components:

(1) desired learning outcomes, formulated as behavior-oriented outcomes in three domains: halal food consumption, halal clothing behavior, and halal social interaction;
(2) assessment evidence, prepared through a halal behavior scale, reflective tasks, case-based activities, and student response questionnaires; and
(3) instructional activities, designed through conceptual introduction, case-based learning, value exploration, group discussion, decision-making exercises, and reflective activities.

This alignment ensured that the developed materials were not only conceptually oriented, but also directed toward measurable behavioral outcomes.

The R&D procedure consisted of seven stages: needs analysis, instructional design, product development, expert validation, revision, implementation, and evaluation [6]. The needs analysis was conducted through document review of the Semester Learning Plan (RPS) of the AIK course "Humanity and Faith," review of existing AIK teaching materials, and preliminary questionnaires involving students and AIK lecturers. The product developed in this study was a digital flipbook-based teaching material entitled Halal Lifestyle. It included learning objectives, entry behavior, core concepts, Qur'anic and hadith reinforcement, contextual illustrations, summaries, case studies, reflective activities, self-evaluation tasks, and digital elements such as QR codes and embedded videos.

Before implementation, the teaching material was evaluated by three experts in halal content, instructional design, and language. The validation focused on:

(1) content feasibility, including relevance, accuracy, depth, and integration of Islamic and halal-related content;
(2) instructional design feasibility, including clarity of learning outcomes, coherence of instructional flow, suitability of learning activities, adult learning principles, and alignment with Backward Design; and
(3) language feasibility, including clarity, readability, grammatical accuracy, and consistency of terminology.

The validation instruments used a four-point Likert scale, ranging from 1 = not appropriate to 4 = very appropriate. The scores were converted into feasibility percentages and interpreted using the following criteria: 81–100% = very feasible, 61–80% = feasible, 41–60% = needs revision, and ≤40% = not feasible. Qualitative comments from validators were used to revise the product before implementation.

The implementation involved undergraduate students enrolled in the AIK course "Humanity and Faith" at Universitas Muhammadiyah Sidoarjo. The effectiveness test involved 133 students from six classes across four faculties who completed both the pretest and posttest. Since no control group was used, the participants were referred to as implementation participants rather than a treatment group. The effectiveness test employed a one-group pretest–posttest design, in which the same students completed the halal behavior scale before and after using the developed materials. This design was selected because the study was conducted in an authentic classroom setting with existing class structures, making random assignment and the use of a control group impractical. Although this design has limitations in causal inference, it was considered appropriate for obtaining initial evidence of product effectiveness in real AIK learning.

The implementation was conducted during meetings 12 to 15. In meeting 12, the lecturer introduced the material and discussed the first two chapters, namely "Faith as the Foundation of Halal Lifestyle" and "The Concept of Halal and Haram in Islam." In meetings 13 and 14, students engaged in guided independent learning and completed reflective and evaluative tasks. In meeting 15, the lecturer facilitated reflection and evaluation, followed by the posttest.

The main instrument for measuring effectiveness was a nine-item halal behavior scale covering halal food consumption (GM1–GM3), halal clothing behavior (GP1–GP3), and halal social interaction (GPR1–GPR3). Each item was scored using a five-point Likert scale, with higher scores indicating stronger halal-oriented behavior. The total score ranged from 9 to 45. The instrument was developed based on the Theory of Planned Behavior (TPB), which emphasizes attitude, subjective norm, perceived behavioral control, intention, and behavior as determinants of human action [20], [21]. Content validity was established through expert judgment, and reliability testing showed good internal consistency, with Cronbach's Alpha values of 0.863 for the pretest and 0.901 for the posttest.

Student responses were collected using a questionnaire consisting of 15 closed-ended items and two open-ended questions. The questionnaire covered four aspects, namely language, content/materials, presentation and display, and benefits/practicality. To minimize social desirability bias, students were informed that their responses would not affect course grades, were encouraged to answer based on actual experiences, and all data were analyzed anonymously. The effectiveness and student response analyses used different complete-data criteria. The effectiveness analysis included 133 students with complete pretest and posttest scores, whereas the student response analysis included 115 students who completed the response questionnaire after implementation.

Qualitative data from document analysis, lecturer questionnaires, expert comments, student responses, and lecturer feedback were analyzed descriptively through coding, categorization, and thematic interpretation [22]. Quantitative data were analyzed using descriptive statistics, including mean, standard deviation, minimum score, and maximum score. Before inferential analysis, the normality of the difference scores between pretest and posttest was examined using the Shapiro–Wilk test. A paired sample t-test was used to examine differences between pretest and posttest scores, and normalized gain (N-Gain) analysis was used to measure the proportional improvement in students' halal behavior.

Results and Discussions

This section presents the findings and discussion related to the development of the Halal Behavior Instructional Model (HBIM). It begins with the needs analysis as the foundation for understanding the limitations of existing AIK learning and the need for behavior-oriented instruction. The following sections then discuss the theoretical integration, model development, teaching material structure, validation results, student responses, and effectiveness of the model.

A. Needs Analysis of AIK Learning

The needs analysis showed that first-semester AIK learning had already introduced students to the foundations of faith, humanity, and Islamic values. However, the existing syllabus and teaching materials had not yet translated these foundations into explicit behavioral outcomes related to halal lifestyle. The materials provided sufficient conceptual and normative explanations, but offered limited structured guidance for students to apply Islamic values in daily decisions related to food consumption, clothing, and social interaction.

This finding is relevant to the broader purpose of AIK in Muhammadiyah higher education. AIK is not intended merely to provide religious information, but to strengthen students' Islamic orientation, moral awareness, and conduct in academic and social life [23], [24]. In Islamic education, knowledge is expected to shape moral consciousness and responsible action, not remain as abstract understanding [25], [26]. Therefore, the need identified in this study should be understood as an instructional gap in which Islamic values were present in the curriculum, but the learning design had not yet sufficiently supported their enactment in measurable behavior.

This result is also consistent with previous studies on AIK and Islamic teaching materials. Hidayat and Prastowo [24] argue that AIK learning should be connected to students' lived realities rather than remain centered on content transmission. Rohmani and Shobahiya [27] show that AIK curriculum and syllabi in Muhammadiyah and 'Aisyiyah higher education still tend to give stronger emphasis to cognitive mastery than to affective and psychomotor development. Maulana et al. [28] also emphasize that Al-Islam teaching materials need to

combine Islamic content with meaningful tasks and practical learning experiences so that religious education contributes to both personal and social piety.

In the present study, this gap appeared in students' need for clearer guidance in applying halal values to everyday situations. Students were familiar with Islamic concepts such as faith, halal, and haram, but they still needed learning experiences that helped them examine choices, consider consequences, respond to social influence, and evaluate their own habits. These issues are increasingly important because students' daily behavior is shaped not only by religious knowledge, but also by peer interaction, lifestyle trends, digital communication, and campus culture.

On this basis, the Halal Lifestyle teaching material was developed to strengthen the connection between Islamic values and behavioral practice. From the perspective of Backward Design, instruction should begin with the expected outcomes, followed by evidence of learning and learning activities that support those outcomes [29]. In this study, the expected outcome was students' ability to apply halal values in food consumption, clothing, and social interaction. From the perspective of the Theory of Planned Behavior, this orientation is also necessary because behavior is shaped by attitude, subjective norm, perceived behavioral control, and intention, rather than by knowledge alone [10], [11]. Therefore, the needs analysis became the basis for developing HBIM as a behavior-oriented instructional model for AIK learning.

B. Integration of TPB and Constructivist Pedagogy

The second finding of this study is the formulation of an integrated framework that connects the Theory of Planned Behavior (TPB) with constructivist pedagogy. This integration was developed to respond to the instructional gap identified in the needs analysis, namely the need for a learning design that links Islamic values with students' behavioral formation. TPB explains the psychological and social determinants of behavior, while constructivist pedagogy explains how students actively interpret, discuss, and apply values through meaningful learning experiences [11], [12], [30], [31]. Table 1 presents the translation of TPB determinants into constructivist pedagogical strategies within the HBIM. The table shows that TPB was not used only as a framework for measuring behavior, but was operationalized as a guide for designing learning activities that support halal behavior formation.

Previous TPB studies on halal-related behavior have mostly used the theory to predict intention and behavior, especially in consumer contexts such as halal food purchasing and halal product selection [4], [5]. In contrast, this study translates TPB determinants into instructional design components. Attitude is addressed through value exploration, ethical deliberation, and reflection on the consequences of halal behavior.

Table 1. Integration of the Theory of Planned Behavior and Constructivist Pedagogy in the Halal Behavior Instructional Model (HBIM)

TPB Determinant	Behavioral Focus	Constructivist Pedagogical Strategy	Learning Activities in HBIM
Attitude	Beliefs about the value, benefits, and consequences of halal behavior	Value exploration and reflective meaning-making	Halal case analysis, ethical deliberation, benefit–consequence reflection
Subjective norm	Perceived social expectations and peer influence	Social dialogue and collaborative learning	Group discussion, peer sharing, role model exploration
Perceived behavioral control	Perceived ability, barriers, and facilitating conditions	Experiential learning and problem-solving	Decision-making simulation, barrier identification, problem-solving exercises, skill practice
Behavioral intention	Personal commitment to perform halal behavior	Reflective learning and action planning	Commitment reflection, personal action planning, self-evaluation

Subjective norm is addressed through social dialogue, peer sharing, and role model exploration. Perceived behavioral control is addressed through decision-making simulation, problem-solving exercises, barrier identification, and skill practice. Behavioral intention is addressed through commitment reflection, action planning, and self-evaluation. Thus, TPB is not used only as a framework for measuring behavior, but also as a guide for designing learning activities that support halal behavior formation.

Constructivist pedagogy provides the learning mechanism for this translation. Piaget [31] explains that learners build understanding by connecting new information with prior knowledge, while Vygotsky [12] emphasizes the role of social interaction in learning and internalization. In the HBIM, case analysis, group discussion, guided reflection, and self-evaluation help students connect Islamic teachings with real-life situations. These activities also serve as scaffolding, supporting students as they move from conceptual understanding toward more independent moral and behavioral judgment [32].

In the context of Islamic higher education, this integration is significant because Islamic education is expected to shape not only knowledge, but also akhlak, moral awareness, and responsible conduct [25], [26]. AIK learning also aims to strengthen students' Islamic orientation and character within Muhammadiyah higher education [23], [24]. Therefore, the HBIM provides a pedagogical bridge between the normative aims of AIK and the behavioral formation expected in students' daily lives.

C. Development of the Halal Behavior Instructional Model (HBIM)

Based on this theoretical integration, the Halal Behavior Instructional Model (HBIM) was developed as the main outcome of the study. The model consists of interconnected components that link behavioral determinants with learning strategies, including attitude development, social norm formation, perceived behavioral control, behavioral intention, and continuous

reflection. As illustrated in Fig. 1, these components are systematically integrated within the HBIM framework to support halal behavior formation.

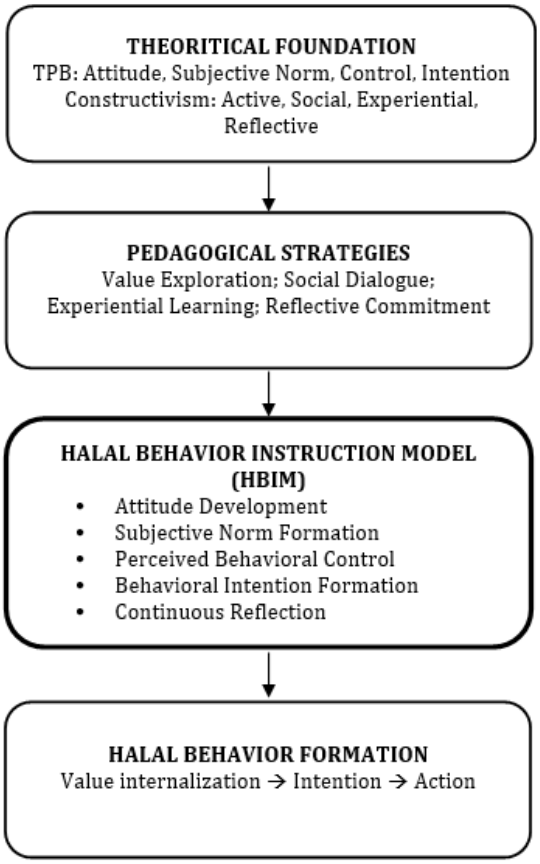


Fig. 1. Halal Behavior Instructional Model (HBIM)

The model highlights that shaping behavior is not simply about delivering information, but involves a gradual and complex process. It requires changes in how students understand halal values, how they respond to social expectations, how confident they feel in applying those values, and how committed they are to practicing them.

This finding reflects a broader tradition in Islamic education, which values not only the acquisition of knowledge but also its meaningful understanding and internalization in everyday life [33]. By integrating behavioral theory with constructivist pedagogy, the HBIM provides a structured and theory-informed framework for Islamic character education.

D. Structure of the Developed Teaching Materials

The HBIM was implemented through the development of teaching materials designed as a supplementary module for AIK courses. The materials are organized into thematic units covering key aspects of halal behavior, including food consumption, clothing, and social interactions. Each unit follows a structured learning sequence consisting of conceptual introduction, case-based learning, value exploration, group discussion, decision-making

exercises, and reflection. This sequence encourages students to actively engage with learning content, connect Islamic teachings with real-life situations, and reflect on their own experiences. The instructional sequence of the developed teaching materials is illustrated in Fig. 2.



Fig. 2. Instructional Structure of HBIM-Based Teaching Materials

The learning process, as shown in Figure 2, is designed to be iterative rather than strictly linear. Reflection activities at the end of each unit allow students to revisit their understanding and refine their perspectives, supporting the gradual internalization of halal values. These findings align with constructivist learning theory, which emphasizes that knowledge is constructed through experience, interaction, and reflection [12], [13]. Recent studies in Islamic education also suggest that student-centered and reflective approaches are more effective in promoting value internalization compared to traditional lecture-based methods [7], [9].

E. Expert Validation and Student Response

The HBIM-based teaching materials were reviewed by three experts to examine their feasibility in terms of content, instructional design, and language. The validation results are presented in Table 2.

Table 2. Expert Validation Results of the Developed Teaching Materials

Aspect	Mean Score	Percentage	Category
Content	3.69	92.19	Very feasible
Instructional Design	3.85	96.25	Very feasible
Language	3.56	89.06	Very feasible
Overall	**3.70**	**92.50**	**Very feasible**

As shown in Table 2, all validation aspects were categorized as very feasible. The highest score was obtained in instructional design (M = 3.85; 96.25%), indicating that the learning sequence, activities, and evaluation components were considered coherent with the behavioral orientation of the model. The content aspect (M = 3.69; 92.19%) shows that the materials were relevant to AIK learning and appropriate for addressing halal behavior in food consumption,

clothing, and social interaction. The language aspect (M = 3.56; 89.06%) also met the very feasible category, suggesting that the materials were sufficiently clear and readable for first-semester students, although minor language refinements were still needed before implementation.

Student responses were analyzed separately from the effectiveness test. The effectiveness analysis involved 133 students who completed both pretest and posttest measurements, whereas the student response analysis involved 115 students who completed the response questionnaire after using the HBIM-based teaching materials. Thus, the difference in the number of respondents reflects the different completeness criteria used for each dataset. The response questionnaire consisted of 15 closed-ended items covering language, content/materials, presentation and display, and benefits/practicality. The results are presented in Table 3.

Table 3. Student Response to the HBIM-Based Teaching Materials

Aspect	Mean Score	Category
Language	4.62	Very good
Content/materials	4.59	Very good
Presentation and display	4.57	Very good
Benefits/practicality	4.61	Very good
Overall	4.59	Very good

Table 3 shows that students responded very positively to the developed materials. The highest score in the language aspect (M = 4.62) indicates that the materials were accessible and easy to follow. The benefits/practicality aspect also received a high score (M = 4.61), suggesting that students perceived the materials as useful for connecting halal concepts with daily experiences. Positive responses to content/materials (M = 4.59) and presentation/display (M = 4.57) further indicate that the combination of contextual cases, reflective tasks, visual presentation, and digital features supported student engagement.

These results suggest that the HBIM-based teaching materials were feasible from the perspective of experts and acceptable to students as users. However, expert validation and student response should be interpreted as evidence of product quality and user acceptance, rather than direct evidence of behavioral change. The effectiveness of the materials in supporting halal behavior formation is examined through pretest and posttest analysis in the following section.

F. Effectiveness of the Teaching Materials

The effectiveness of the HBIM was evaluated through pretest and posttest measurements of students' halal behavior. The analysis involved 133 students who completed both pretest and posttest measurements. The summary of pretest and posttest scores is presented in Table 4.

Table 4. Summary of pretest and posttest scores

Variable	N	Mean	SD	Min	Max
Pretest	133	37.34	5.24	23	45
Posttest	133	38.71	5.26	24	45

Table 4 shows an increase in the mean score from 37.34 in the pretest to 38.71 in the posttest. Before conducting the paired sample t-test, the normality of the difference scores was examined using the Shapiro–Wilk test. The result indicated that the difference scores were normally distributed (W = 0.986, p = 0.213), supporting the use of the paired sample t-test.

Table 5. Paired Sample t-Test and N-Gain Results

Comparison	Pretest Mean	Posttest Mean	Mean Difference	t	df	p-value	Cohen's dz	N-Gain	Category
Pretest–Posttest	37.34	38.71	1.37	2.208	132	0.029	0.19	0.18	Low

The paired sample t-test showed that the increase in students' halal behavior scores was statistically significant, t(132) = 2.208, p = 0.029. The mean difference was 1.37 points, with a 95% confidence interval ranging from 0.14 to 2.59. However, the effect size was small (Cohen's dz = 0.19), indicating that the practical magnitude of the change was limited. The normalized gain score was 0.18, which falls into the low category. These results indicate that the HBIM-based teaching materials produced a statistically detectable improvement, but the level of behavioral change remained modest.

The low N-Gain should be interpreted as a critical finding rather than as a simple indication of instructional weakness. Previous studies on behavior change show that educational interventions often produce stronger effects on knowledge, awareness, or intention than on actual practice, especially when the intervention is short and the targeted behavior is embedded in daily habits and social contexts [34], [35], [36]. Similar patterns have also been reported in halal education, where instructional or media-based interventions may improve halal knowledge and awareness, while evidence of stable behavioral change usually requires longer observation and stronger environmental support [37], [38].

From the perspective of the Theory of Planned Behavior, the modest improvement is understandable because behavior is not shaped by knowledge alone. It is influenced by attitude, subjective norm, perceived behavioral control, intention, and actual control over the behavior [11]. Webb and Sheeran [39] also show that changes in intention tend to produce smaller changes in actual behavior, indicating the presence of an intention–behavior gap. Therefore, students may begin to understand halal values and develop positive intentions, but consistent behavior still depends on their ability to act under real-life constraints.

A more detailed analysis by behavioral domain provides further insight into this pattern. The improvement was not evenly distributed across the three domains of halal behavior, as shown in Table 6.

Table 6. Changes in Halal Behavior by Domain

Domain	Mean Pretest	SD Pretest	Mean Posttest	SD Posttest	p-value
Food consumption	13.25	1.62	13.17	1.78	0.711
Clothing behavior	12.18	2.13	12.81	2.02	0.011
Social interaction	11.91	2.20	12.72	1.99	0.001

Table 6 shows that significant improvement occurred in clothing behavior and social interaction, while food consumption did not show a significant increase. This finding suggests that halal behavior should not be treated as a single homogeneous construct. Each domain involves different levels of personal control, social influence, habit, and environmental support. Clothing behavior and social interaction may be more directly connected to personal decision-making, self-presentation, communication patterns, and peer interaction. In contrast, food consumption may be more strongly influenced by external factors such as product availability, halal labeling, price, canteen choices, ingredients, and established consumption habits.

This domain-level difference also suggests that perceived behavioral control and actual control may be particularly important in sustaining halal behavior. In TPB, perceived behavioral control refers to students' perceived ability to perform a behavior, while actual control refers to the real opportunities, resources, and constraints that determine whether the behavior can be performed [10], [11], [31]. Thus, students may know what should be done and may intend to act accordingly, but their behavior can still be limited by environmental conditions, social pressure, or habitual routines.

From a constructivist perspective, the findings indicate that case-based learning, discussion, and reflection can support the reconstruction of students' understanding, but stable behavior requires repeated experience and gradual internalization. Piaget [31] explains that learning involves the reorganization of cognitive structures through interaction with experience, while Vygotsky [12] emphasizes that socially supported learning needs to be internalized before it becomes independent action. Scaffolding also helps learners handle tasks that they cannot yet manage independently, but such support needs to be gradually transformed into autonomous practice [32]. In higher education, reflection, self-assessment, and transfer are also important for helping students use their understanding in new situations [40].

Therefore, the HBIM should be understood as an instructional model that initiates halal behavior formation rather than one that produces instant behavioral transformation. Its value lies in providing structured opportunities for students to analyze real-life cases, examine social

influences, identify barriers, reflect on their choices, and formulate personal action plans. However, long-term halal behavior formation requires repeated reinforcement, follow-up tasks, behavioral self-audits, and a campus environment that supports halal practices.

G. Implications for Islamic Higher Education

The findings imply that HBIM can support AIK instruction by making students' real-life experiences a central part of the learning process. In this framework, everyday situations such as choosing halal food, responding to clothing trends, maintaining ethical social interaction, communicating through digital media, and dealing with peer influence are used as learning contexts. These situations are then processed through case analysis, value exploration, group discussion, decision-making exercises, reflection, self-evaluation, and action planning. Through this structure, students are not only introduced to Islamic values conceptually, but are also guided to examine how those values operate in concrete choices and daily behavior.

HBIM also differs from existing AIK instructional practices by shifting the orientation of learning from content transmission to behavior-oriented instruction. Existing AIK learning generally provides Islamic concepts and normative explanations, but these are not always translated into explicit behavioral outcomes, reflective evidence, and structured activities for applying values in daily life. HBIM addresses this gap by starting from behavioral outcomes, aligning them with assessment evidence and learning activities, and integrating TPB-based behavioral determinants with constructivist learning strategies. Therefore, the framework does not replace the normative foundation of AIK; rather, it strengthens the pedagogical translation of Islamic values into contextual, reflective, and measurable learning experiences.

Conclusion

This study developed and validated the Halal Behavior Instructional Model (HBIM) as a behavior-oriented instructional framework for AIK learning in Islamic higher education. The validation in this study refers to expert validation of the developed teaching materials and limited classroom implementation, not broad empirical validation across institutions. Expert validation showed that the materials were very feasible in terms of content, instructional design, and language, while student responses indicated that the materials were highly acceptable for use in AIK learning. Structurally, HBIM connects TPB components with constructivist learning strategies. Attitude is supported through value exploration and ethical reflection, subjective norm through social dialogue and peer discussion, perceived behavioral control through experiential learning and problem-solving, and behavioral intention through reflective learning, self-evaluation, and action planning.

The implementation results indicate that HBIM can initiate halal behavior formation, although the observed change remained limited. Students' halal behavior scores increased from 37.34 in the pretest to 38.71 in the posttest, and the paired sample t-test showed a

statistically significant difference, t(132) = 2.208, p = 0.029. However, the small effect size (Cohen's dz = 0.19) and low N-Gain score (0.18) suggest that the magnitude of behavioral change was modest. These findings show that constructivist activities such as case analysis, group discussion, decision-making exercises, reflection, and self-evaluation can help students connect Islamic values with real-life choices, but sustained reinforcement and supportive learning environments are still needed to strengthen long-term halal behavior.

Limitation and Suggestions

This study has several limitations that should be considered when interpreting the findings. First, the implementation of the model was conducted within a relatively limited time frame, which may not fully capture long-term behavioral change. Second, the measurement of students' halal behavior relied primarily on self-reported data, which may be subject to response bias and may not entirely reflect actual behavior in real-life contexts. Third, this study did not separately measure changes in attitude, subjective norm, perceived behavioral control, and behavioral intention as mediating variables; therefore, the explanation of TPB components should be interpreted as a theoretical interpretation rather than a direct mediation finding.

The study was also conducted within a specific institutional setting, which may limit the generalizability of the findings to other educational contexts with different characteristics. Despite these limitations, the study provides an initial understanding of how instructional design can support the development of halal behavior among university students.

Future research should explore the long-term impact of the HBIM through longitudinal studies, involve more diverse participant groups, and incorporate more comprehensive behavioral assessment methods. Furthermore, future studies may examine the integration of instructional interventions with environmental and institutional factors that support halal behavior.

Conflict of Interest

The authors declare no conflict of interest.

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