



Contextualizing of Technology Issues in Anthropology Learning: Efforts to Strengthen Social Concern in The Digital Era

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Abstract

Anthropology learning in higher education is often constrained by theoretical instruction and limited contextual engagement, reducing students' opportunities to connect anthropological concepts with contemporary social realities. This study aimed to develop and assess the feasibility of a Science, Technology, and Society (STS)-based Anthropology learning model to strengthen students' social concern in Islamic higher education. Using a Research and Development design with an evaluative orientation, the study was conducted through three stages: needs analysis, model development, and expert validation. Data were collected through classroom observation, Semester Learning Plan analysis, structured interviews, social concern questionnaires, documentation, and expert validation sheets. Quantitative data were analyzed using descriptive statistics, while qualitative data were examined through thematic analysis. The findings show that Anthropology learning requires a more contextual, participatory, and reflective structure that enables students to identify technology-related social issues, analyze them through anthropological concepts, and reflect on their ethical and social implications. The developed model consists of issue identification, concept formation, field application, social concern development, reporting of findings, and assessment. Its supporting products include a model book, lecturer guidebook, and student guidebook. The novelty of this study lies in extending the STS approach into Anthropology learning by positioning technology issues as social and cultural phenomena rather than merely technical matters. The model offers a structured pedagogical framework for linking conceptual understanding, field observation, ethical reflection, and social responsibility. Further classroom-based testing is recommended to examine its effectiveness in improving students' social concern across broader higher education contexts.

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INTRODUCTION

Higher education is increasingly expected to produce graduates who are not only academically competent but also socially aware, ethically responsible, and capable of responding to complex social problems. In this context, Anthropology has a strategic position because it enables students to understand cultural diversity, social relations, human behavior, and the transformation of values within society. Anthropology learning can help students interpret everyday social realities rather than merely memorize concepts about culture and society. However, this potential can only be achieved when learning is connected to concrete social experiences and contemporary issues faced by students. Recent studies in anthropology education emphasize that meaningful learning requires contextual engagement, reflective inquiry, and opportunities for students to relate disciplinary knowledge to real-life situations (Barak, 2024; Doz et al., 2025; Gozum & Mendoza, 2026;

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Ramli et al., 2025). Therefore, Anthropology learning in higher education should be designed not only to develop conceptual understanding but also to cultivate empathy, social sensitivity, and responsibility toward community life.

Despite this potential, Anthropology instruction in higher education often remains dominated by theoretical explanation, lecturer-centered delivery, and limited interaction with real social contexts. Such instruction may reduce students' opportunities to observe, interpret, and critically reflect on social phenomena occurring around them. When Anthropology is taught mainly through abstract concepts, students may understand definitions of culture, identity, social change, and community, but fail to connect them with actual social problems. This condition is problematic because social awareness cannot be developed through cognitive mastery alone; it requires direct or mediated engagement with lived realities. Field-based, case-based, and experiential learning have been shown to help students understand the relationship between theory and social practice in Anthropology learning (Agustian, 2025; Blasco et al., 2022; Wang, 2024). Thus, the main challenge is not the relevance of Anthropology as a discipline, but the limited pedagogical model used to transform anthropological knowledge into socially meaningful learning experiences.

The urgency of contextual Anthropology learning has become stronger in the digital era, where technology increasingly shapes students' patterns of communication, interaction, identity formation, and participation in society. Digital technologies provide broader access to information, collaboration, and civic expression, but they also create new social problems that require critical interpretation. Issues such as misinformation, cyberbullying, digital polarization, reduced face-to-face interaction, algorithmic bias, and unequal access to technology have become part of students' everyday social environment (N & Muralidharan, 2026; Ognibene et al., 2023). These issues are not merely technical problems; they are also cultural and social phenomena that influence values, relationships, and community life. Anthropology learning can provide an important analytical lens for examining how technology transforms social practices and cultural meanings. Therefore, technology issues should not be treated only as external topics in education, but as authentic contexts through which students can develop critical awareness and social concern.

In Islamic higher education, the need to strengthen students' social concern becomes more significant because academic development is closely related to moral formation, social responsibility, and public benefit. Students in Islamic universities are expected to become intellectually capable individuals who are also sensitive to humanitarian, ethical, and community issues. This expectation is consistent with the broader mission of Islamic education, which emphasizes character formation, responsibility, and social contribution (Firdaus & Suwendi, 2025; Islamic et al., 2024). However, students' social concern may remain weak when the learning process does not provide sufficient opportunities for dialogue, observation, collaboration, and reflection on real social problems. The needs analysis in this study also indicates that Anthropology learning requires a more contextual and participatory model to connect course materials with social realities experienced by students. For this reason, developing a learning model that integrates anthropological concepts, technology-related social issues, and social concern is both pedagogically and institutionally important.

Previous studies have generally moved in three dominant directions. First, research on Anthropology learning has emphasized the importance of fieldwork, real-life case studies, and interdisciplinary learning to help students experience theory as a tool for understanding society (Enríquez et al., 2023; Marvell & Simm, 2026; Ruggerio et al., 2024). Second, studies on digital learning and higher education have shown that technology can support collaboration, access to knowledge, critical literacy, and student engagement when it is used with clear pedagogical purposes (Brown et al., 2022; Getenet, Cantle, et al., 2024; Getenet, Haeusler, et al., 2024). Third, research on civic engagement and socially oriented learning has highlighted the importance of participatory learning experiences in developing empathy, ethical reflection, social responsibility, and community involvement (Plessas et al., 2024; Tripon, 2024). These studies provide an important foundation for understanding the relationship between learning, technology, and social awareness. Nevertheless, they tend to examine Anthropology learning, digital technology, and social concern as separate areas of inquiry rather than integrating them into a coherent instructional model.

The Science, Technology, and Society (STS) approach offers a relevant framework for addressing this limitation because it links knowledge, technological development, and social consequences within the learning process. Previous studies have demonstrated that STS-oriented

learning can strengthen scientific literacy, critical thinking, environmental awareness, ethical reasoning, and students' understanding of the relationship between knowledge and society (Begum et al., 2022; Kumar et al., 2024). However, the use of STS has been more dominant in science education, environmental education, and technology-related subjects, while its application in Anthropology learning remains limited. Existing studies have also not sufficiently explained how technology issues can be contextualized through anthropological concepts such as culture, identity, social structure, social change, and community relations. More critically, little attention has been given to the development of an STS-based Anthropology learning model that explicitly integrates technology issues, field application, ethical reflection, reporting of findings, and social concern development in Islamic higher education. This gap shows that a structured model is needed to move Anthropology learning from theoretical explanation toward contextual, reflective, and socially engaged learning.

Based on this gap, the present study aims to develop and assess the feasibility of an STS-based Anthropology learning model designed to strengthen students' social concern in Islamic higher education. The model integrates anthropological concepts with contemporary issues related to science, technology, and society through a structured learning syntax consisting of issue identification, concept formation, field application, social concern development, reporting of findings, and assessment. The novelty of this study lies in the development of an STS-based Anthropology learning model that extends conventional STS syntax by incorporating field application, social concern development, and reporting of findings as pedagogical stages for strengthening students' social awareness. Theoretically, this study contributes to the extension of STS-based learning by positioning Anthropology as a discipline capable of interpreting technological change as a social and cultural phenomenon. Practically, the model provides lecturers with a systematic framework for designing contextual, reflective, and participatory Anthropology learning. Through this contribution, the study is expected to support Anthropology learning that is more responsive to the digital era and more aligned with the mission of Islamic higher education in forming socially responsible graduates.

METHOD

Research Design

This study employed a Research and Development (R&D) design with an evaluative orientation to develop and assess the feasibility of a Science, Technology, and Society (STS)-based Anthropology learning model for strengthening students' social concern. Development research is appropriate when a study aims to design, refine, and evaluate an educational product before it is implemented more widely, as emphasized in educational design research by (Jacobsen & McKenney, 2024; Moore et al., 2024). In this study, the product was not limited to a conceptual model, but also included learning syntax, social system, reaction principle, support system, instructional impact, accompanying impact, and supporting instructional tools. The development process consisted of three main stages: needs analysis, model development, and expert validation. These stages were used to ensure that the model was constructed based on actual learning problems, theoretical foundations, and expert judgment.

Research Setting and Participants

The research was conducted at an Islamic higher education institution in Padang, Indonesia, within the context of Anthropology learning. This setting was selected because Anthropology courses in Islamic higher education are expected to support not only conceptual understanding of society and culture, but also the development of students' moral awareness, empathy, and social responsibility. The participants involved in the needs analysis consisted of Anthropology lecturers and students enrolled in Anthropology courses. Lecturers were involved because they had direct experience in designing and implementing Anthropology learning, while students were involved because they were the main users of the developed model. Expert validators consisted of subject-matter experts and learning design experts who assessed the relevance, clarity, feasibility, and applicability of the model. Participants were selected purposively because they were directly related to the objectives of the study and had relevant experience in Anthropology learning or instructional model development.

Development Procedure, Instruments, and Data Analysis

The research procedure consisted of needs analysis, model development, and expert validation. In the needs analysis stage, data were collected through classroom observation, analysis of Semester Learning Plan documents, structured interviews with lecturers and students, and a social concern questionnaire. This stage aimed to identify the limitations of existing Anthropology learning practices and the extent to which current instruction supported students' social concern. In the model development stage, the needs analysis findings were used to design the STS-based Anthropology learning model, including its syntax and supporting instructional tools. The model produced in this stage consisted of a model book, lecturer guidebook, and student guidebook. In the expert validation stage, the draft model and its supporting tools were reviewed by subject-matter and learning design experts to determine their feasibility and to obtain suggestions for revision.

Data were collected using observation sheets, interview guides, a social concern questionnaire, documentation checklists, and expert validation sheets. The observation sheet was used to examine learning patterns, lecturer-student interaction, student participation, and the contextualization of Anthropology materials. The interview guide explored lecturers' and students' perceptions of existing Anthropology learning, challenges in connecting course concepts with social realities, and expectations for a more contextual learning model. The social concern questionnaire measured students' tendencies related to social sensitivity, empathy, responsibility, participation in social activities, and awareness of social issues. The documentation checklist was used to review the Semester Learning Plan and other instructional documents. The expert validation sheet assessed the model in terms of content relevance, syntax clarity, instructional coherence, applicability, language clarity, and suitability for strengthening students' social concern.

Quantitative data obtained from the social concern questionnaire and expert validation sheets were analyzed using descriptive statistics, including mean scores, percentages, and feasibility categories. The feasibility percentage was calculated using the following formula:

$$[P = \frac{\text{Obtained Score}}{\text{Maximum Score}} \times 100\%]$$

The resulting percentage was interpreted using predetermined feasibility categories, namely very feasible, feasible, less feasible, and not feasible. Qualitative data obtained from observations, interviews, documentation, and expert comments were analyzed using thematic analysis. Thematic analysis was conducted through data familiarization, initial coding, category development, theme construction, review, and interpretation, following the procedure proposed by Braun and Clarke (2020). The integration of quantitative and qualitative data was used to explain learning problems, justify the model design, and support revisions to the developed product.

Table 1. Research Procedure, Instruments, and Data Analysis

Stage	Main Activity	Instrument	Data Source	Analysis Technique	Output
Needs analysis	Identifying existing learning problems and students' social concern needs	Observation sheet, interview guide, questionnaire, documentation checklist	Lecturers, students, classroom practices, and RPS documents	Descriptive statistics and thematic analysis	Learning needs and basis for model design
Model development	Designing STS syntax, model components, and supporting tools	Development notes and theoretical framework	Needs analysis results and relevant literature	Interpretive synthesis	Draft of STS-based Anthropology learning model
Expert validation	Assessing the feasibility and clarity of the developed model	Expert validation sheet	Subject-matter experts and learning design experts	Percentage score and expert comment analysis	Feasibility judgment and revised model

Table 1 shows the alignment between the development stages, instruments, data sources, analysis techniques, and outputs. This alignment was used to ensure methodological coherence and to make the research procedure more transparent and replicable.

Instrument Validity and Reliability

Instrument quality was examined through expert judgment and content validation. The instruments were reviewed to ensure alignment with the research objectives, STS framework, Anthropology learning components, and indicators of social concern. Content validation focused on the relevance, clarity, representativeness, and suitability of each item for collecting the required data. If the social concern questionnaire is used for broader empirical testing, its internal consistency should be examined using Cronbach's alpha. (Küçük et al., 2025; Zheng & Wang, 2026) explains that Cronbach's alpha is commonly used to evaluate the internal consistency of scale-based instruments, with 0.70 frequently used as a minimum acceptable threshold in educational research. Qualitative instruments, including interview guides and observation sheets, were refined to ensure that the questions were open-ended, non-leading, contextually relevant, and capable of generating meaningful information about Anthropology learning and students' social concern.

Ethical Considerations

This study followed basic principles of research ethics. Participants were informed about the purpose of the study, the voluntary nature of their participation, and their right to withdraw from the research process. Informed consent was obtained before data collection. The identities of lecturers, students, and expert validators were kept confidential through anonymized reporting. All collected data were used only for academic purposes and interpreted carefully to avoid misrepresentation of participants or the institutional context.

RESULTS AND DISCUSSION

Results

The findings of this study are presented according to the sequential stages of the research and development process. The results begin with the identification of instructional needs that served as the foundation for designing the learning model. They are followed by the development of the STS-based Anthropology learning model, including its conceptual framework, instructional characteristics, learning flow, and operational learning scenario. This organization reflects the systematic progression of the study from problem identification to the production of a validated instructional model, thereby providing a clear description of how the developed model addresses the identified needs in Anthropology learning.

Findings from the Needs Analysis

The needs analysis showed that Anthropology learning required a more contextual and participatory instructional model. The existing learning process still tended to emphasize theoretical explanation, while opportunities for students to connect anthropological concepts with contemporary social realities were limited. Classroom observations indicated that students needed learning activities that allowed them to identify social issues, analyze them from an anthropological perspective, and reflect on their social and ethical implications. The analysis of instructional documents also showed that the course materials had covered important topics such as social values and morals, social and cultural change, ethnic groups, and interethnic relations. However, these topics had not been systematically linked to technology-related social issues in students' everyday lives. The interview and observation findings therefore became the basis for developing an STS-based Anthropology learning model oriented toward strengthening students' social concern.

Table 2. Summary of Needs Analysis Findings

Data Source	Main Finding	Implication for Model Development
Classroom observation	Learning was still dominated by conceptual explanation and limited contextual engagement	The model should provide structured contextual learning activities

RPS/document analysis	Anthropology topics were available but not systematically connected to technology-related social issues	Course materials should be linked to contemporary STS issues
Lecturer input	Lecturers needed a clearer learning guide for integrating social issues into Anthropology learning	A lecturer guidebook and structured syntax were required
Student learning needs	Students needed more active, reflective, and socially relevant learning experiences	The model should include field application, discussion, and reporting activities

Table 2 presents the main findings from the needs analysis. These findings indicate that the developed model needed to bridge Anthropology concepts, technology-related social issues, and students' social concern through a more structured learning design.

Development of the STS-Based Anthropology Learning Model

Based on the needs analysis, an STS-based Anthropology learning model was developed to integrate anthropological concepts with contemporary issues related to science, technology, and society. The model was designed to help students understand social phenomena not only as theoretical objects, but also as lived realities that require observation, analysis, reflection, and communication. The developed model consisted of several main components: learning syntax, social system, reaction principle, support system, instructional impact, and accompanying impact. The supporting products included a model book, a lecturer guidebook, and a student guidebook. The model book contained the rationale, theoretical foundation, model components, and implementation guidance. The lecturer guidebook provided instructional directions for conducting learning activities, while the student guidebook presented learning steps and tasks to be completed during the course.

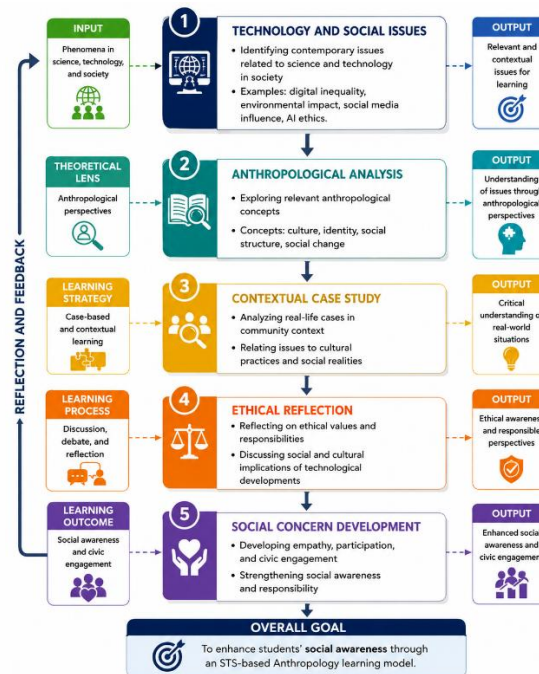


Figure 1. Conceptual Framework of the STS-Based Anthropology Learning Model

Figure 1 illustrates the conceptual relationship among technology issues, anthropological analysis, ethical reflection, and social concern. The model begins with technology-related social issues as contextual entry points. These issues are then analyzed through anthropological concepts such as culture, identity, social structure, and social change. The analysis is followed by ethical reflection and field-based learning activities, which are intended to strengthen students' social concern and responsibility.

Characteristics of the Developed Learning Model

The developed model has distinctive characteristics that differentiate it from conventional STS learning syntax. The model does not only invite students to understand the relationship between

science, technology, and society, but also requires them to apply anthropological concepts in analyzing real social issues. The main novelty of the model lies in the addition of field application, social concern development, and reporting of findings. These stages provide students with opportunities to observe social realities, develop critical and creative thinking, and communicate their findings through classroom discussion. The model therefore moves learning from conceptual understanding toward contextual engagement and social reflection.

Table 3. Syntax of the STS-Based Anthropology Learning Model

Conventional STS Stage	Developed STS-Based Anthropology Model	Main Learning Activity
Introduction / Initiation / Exploration	Issue or problem identification	Students identify technology-related social issues through literature review, internet-based exploration, and initial classroom discussion
Concept formation / Development	Concept formation	Students strengthen their understanding of Anthropology concepts through lecturer guidance, consultation, and group discussion
Application of concepts in life	Field application	Students conduct field observation or simple social inquiry related to the selected issue
Concept strengthening	Social concern development	Students analyze the social impact of the issue and develop critical, creative, and socially responsible responses
Assessment	Reporting of findings and assessment	Students present findings, discuss results, receive feedback, and complete assessment activities

Table 3 shows the learning syntax of the developed model. The sequence begins with issue identification and continues with concept formation, field application, social concern development, and reporting of findings. This syntax was designed to make Anthropology learning more contextual, participatory, and oriented toward social awareness.

Learning Flow of the Developed Model

The learning flow was designed to guide lecturers and students in implementing the model systematically. Learning begins with the identification of social issues relevant to students' daily experiences, especially issues related to technology and social change. These issues are then connected to Anthropology concepts through concept formation activities. After developing conceptual understanding, students conduct field application activities by observing or examining relevant social phenomena. The next stage encourages students to develop social concern through ethical reflection, group discussion, and critical analysis of the selected issue. The learning process ends with reporting of findings and assessment.

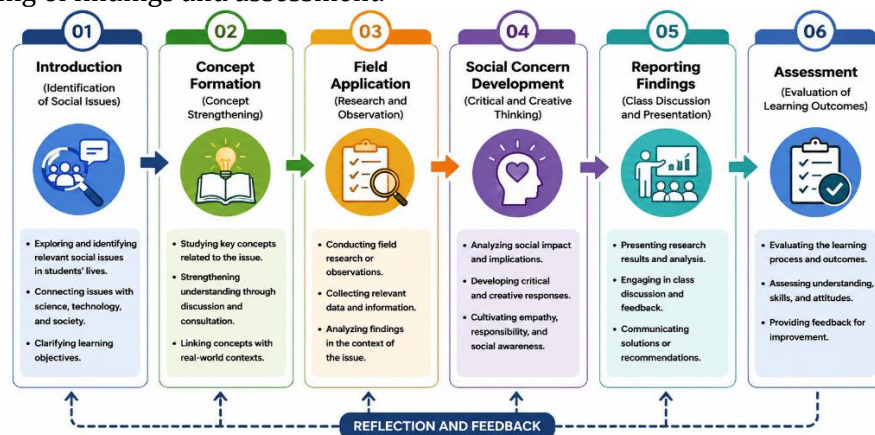


Figure 2. Learning Flow of the STS-Based Anthropology Learning Model

Figure 2 presents the flow of learning activities in the developed model. The figure shows that learning is organized as a sequence from issue identification to assessment. This flow helps lecturers

implement the model in a structured manner and helps students move gradually from understanding concepts to engaging with social realities.

Components of the Developed Model

The developed model consists of five main instructional components. The first component is syntax, which refers to the sequence of learning activities from the beginning to the end of instruction. The second component is the reaction principle, which describes how lecturers respond to students' learning behaviors during inquiry, discussion, field application, and reporting activities. In this model, lecturers function as facilitators who guide students in understanding concepts, analyzing problems, conducting observations, and reflecting on social implications. The third component is the social system, which describes the roles and relationships between lecturers and students. Learning is organized through participatory, cooperative, and reflective interaction. The fourth component is the support system, which includes the model book, lecturer guidebook, and student guidebook. The fifth component consists of instructional and accompanying impacts. The instructional impact is the development of students' social concern, while the accompanying impacts include collaboration, motivation, democratic classroom interaction, and critical thinking.

Learning Scenario of the STS-Based Anthropology Model

The learning scenario was designed based on the syntax of the developed model. The scenario organizes learning into introduction, core activities, and closing activities. In the introduction stage, lecturers introduce the topic, clarify the learning objectives, and guide students to identify relevant social and technological issues. In the core activities, students strengthen concepts, conduct field application, analyze social impacts, and develop social concern. In the closing stage, students report their findings, participate in discussion, and receive feedback from lecturers and peers.

Table 4. Scenario of the STS-Based Anthropology Learning Model

Activity	Syntax	Lecturer's Role
Introduction	Issue or problem identification	Introducing the topic, explaining learning objectives, and helping students connect Anthropology materials with social, technological, and scientific contexts
Core activity	Concept formation	Guiding students in understanding key Anthropology concepts and strengthening their conceptual foundation through consultation and discussion
Core activity	Field application	Guiding students in planning and conducting field observation or simple social inquiry related to the selected issue
Core activity	Social concern development	Encouraging students to examine the social impact of the issue and guiding ethical and social reflection
Closing activity	Reporting of findings and assessment	Guiding students in presenting findings, facilitating discussion, providing feedback, and assessing learning outcomes

Table 4 presents the operational scenario for implementing the STS-based Anthropology learning model. The scenario clarifies the role of lecturers in each stage and provides a practical guide for classroom implementation.

Final Product of the Developed Model

The final product of this study was an STS-based Anthropology learning model designed to strengthen students' social concern in the digital era. The model integrates Anthropology materials with contemporary social issues related to science, technology, and society. The final product includes three main outputs: a model book, a lecturer guidebook, and a student guidebook. The model book explains the rationale, components, and implementation structure of the learning model. The lecturer guidebook provides practical guidance for managing each learning stage. The student guidebook contains learning instructions, activity steps, and reporting tasks. Overall, the developed model provides a structured framework for making Anthropology learning more contextual, reflective, participatory, and socially oriented.

Discussion

The needs analysis indicates that Anthropology learning requires a more contextual and participatory structure because conventional instruction remains insufficient for transforming conceptual knowledge into social concern. This finding suggests that the main pedagogical problem

is not the absence of relevant Anthropology content, but the lack of a learning mechanism that enables students to connect concepts with contemporary social realities. From a constructivist perspective, learning becomes meaningful when students actively interpret knowledge through experience, dialogue, and problem engagement rather than passively receiving information. This supports previous studies showing that field-based, case-based, and experiential learning help students understand the relationship between theory and social practice in higher education (Blasco et al., 2022; Enríquez et al., 2023; Marvell & Simm, 2026; Ruggerio et al., 2024). However, the present study extends those findings by showing that contextualization in Anthropology learning needs to be directed not only toward general social cases, but also toward technology-related issues that shape students' everyday lives. This means that social concern can be strengthened when learning provides structured opportunities to identify, analyze, and reflect on issues that students actually encounter in their social environment.

The development of the STS-based Anthropology learning model demonstrates that technology issues can function as an authentic entry point for strengthening students' social awareness. In this model, technology is not treated merely as a learning medium, but as a social and cultural phenomenon that can be examined through anthropological concepts such as culture, identity, social structure, and social change. This interpretation expands the conventional use of the STS approach, which has been more frequently applied in science, environmental, and technological education contexts. Previous studies have shown that STS-oriented learning can strengthen critical thinking, socio-scientific reasoning, and awareness of the relationship between knowledge and society (Begum et al., 2022; Kumar et al., 2024). The present study supports this argument but shifts the emphasis from scientific literacy to anthropological interpretation and social concern. This shift is important because digital inequality, algorithmic bias, misinformation, and social media polarization are not only technological problems, but also cultural and ethical issues that influence social relationships and civic responsibility (Ognibene et al., 2023; N & Muralidharan, 2026). Therefore, the model contributes conceptually by positioning STS as a bridge between Anthropology learning and the social consequences of technological change.

The distinctive syntax of the developed model provides a more systematic pathway for moving students from conceptual understanding to social engagement. The stages of issue identification, concept formation, field application, social concern development, reporting of findings, and assessment create a learning sequence that combines inquiry, reflection, and communication. This sequence is significant because social concern cannot be formed through abstract moral instruction alone; it requires students to encounter social issues, interpret them critically, and communicate their understanding in a responsible way. The addition of field application and reporting of findings strengthens the model because students are required to observe social realities and transform their observations into shared academic discussion. This finding is consistent with studies emphasizing that experiential and community-oriented learning can develop empathy, responsibility, and engagement when students are actively involved in real or simulated social contexts (Plessas et al., 2024; Tripon, 2024). Nevertheless, this study goes further by embedding such engagement into an Anthropology-specific STS syntax, rather than treating fieldwork or reflection as separate learning activities. The novelty therefore lies in the integration of technology issues, anthropological analysis, field application, and social concern development within a single instructional sequence.

The components of the developed model also show that lecturer roles must shift from knowledge transmission to facilitation, mediation, and reflective guidance. This shift is essential because the success of contextual learning depends not only on the topics selected, but also on how lecturers organize interaction, guide inquiry, and encourage ethical reflection. The reaction principle and social system in the model require lecturers to create participatory spaces where students can question assumptions, discuss multiple perspectives, and connect social issues with anthropological concepts. Such a role is aligned with dialogic and constructivist pedagogy, which emphasizes interaction, inquiry, and meaning-making in learning (Barak, 2024; Doz et al., 2025; Gozum & Mendoza, 2026). It also corresponds with studies on digital learning engagement, which show that technology-related learning becomes meaningful when supported by pedagogical clarity and active student participation (Brown et al., 2022; Getenet, Cantle, et al., 2024; Getenet, Haeusler, et al., 2024). However, the model also implies a practical challenge: lecturers need sufficient pedagogical

competence to manage inquiry, field application, and ethical discussion effectively. Without this capacity, the model may risk becoming procedural rather than transformative.

In the context of Islamic higher education, the developed model has broader significance because it connects academic learning with moral responsibility and social contribution. The integration of social concern into Anthropology learning is consistent with the mission of Islamic education, which emphasizes character formation, ethical awareness, and responsibility toward society (Firdaus & Suwendi, 2025; Islamic et al., 2024). At the same time, the model offers a more contemporary interpretation of this mission by linking moral development with technology-related social realities in the digital era. Previous studies have discussed character education, civic engagement, and socially oriented learning, but they have not sufficiently connected these concerns with Anthropology learning through an STS-based instructional model. This study therefore fills a specific gap by offering a model that is conceptually grounded, contextually relevant, and practically applicable for lecturers. Its contribution is not in proving large-scale effectiveness, because the study remains focused on model development and feasibility, but in providing a structured pedagogical framework that can be tested further. Future empirical studies should examine the effectiveness of this model through classroom implementation, pre-test and post-test designs, or comparative studies across different higher education contexts.

CONCLUSION

This study developed an STS-based Anthropology learning model designed to strengthen students' social concern in Islamic higher education. The findings show that Anthropology learning requires a more contextual, participatory, and reflective structure because existing instruction still tends to emphasize theoretical explanation with limited connection to technology-related social issues. The developed model addresses this need by integrating issue identification, concept formation, field application, social concern development, reporting of findings, and assessment into a systematic learning syntax.

The main contribution of this study lies in extending the STS approach into Anthropology learning by positioning technology issues as social and cultural phenomena that can be analyzed through anthropological perspectives. The model offers a practical framework for lecturers to design learning that connects conceptual understanding with field observation, ethical reflection, and social responsibility. This study is limited to the development and feasibility stage; therefore, future research should test the model through classroom implementation, experimental or quasi-experimental designs, and broader institutional contexts to examine its effectiveness in improving students' social concern.

AUTHOR CONTRIBUTIONS STATEMENT

Lisna Sandora conceived and designed the study, developed the research framework, conducted the needs analysis, designed the STS-based Anthropology learning model, collected and analyzed the data, interpreted the findings, and prepared the original manuscript. Nissya Febrizani contributed to the conceptual refinement of the learning model, participated in data interpretation, critically reviewed the manuscript for important intellectual content, validated the academic arguments, and supervised the overall research process. Both authors discussed the findings, contributed to the revision of the manuscript, approved the final version for publication, and agreed to be accountable for all aspects of the work.

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