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Analysis of the Need for Development of Science Learning Tools Based on Religious Moderation in Junior High Schools in Conflict Prone Areas in West Nusa Tenggara

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Abstract: This research was conducted to analyze the need for developing learning tools based on religious moderation in schools in conflict-prone areas in West Nusa Tenggara. This qualitative research uses a document analysis and narrative analysis approach. The research subjects were 20 people from conflict-prone areas in West Nusa Tenggara who were taken using a purposive sampling technique. Data was collected using documentation techniques, focus group discussions and in-depth interviews. Data from document analysis was interpreted using the thematic analysis method and FGD data was analyzed using narrative analysis to obtain conclusions regarding the need for developing learning tools based on religious moderation in schools in conflict-prone areas. The research results show that science learning tools in junior high schools in conflict-prone areas do not fully contain the value of religious moderation. Science learning tools for students in conflict-prone areas require explicit elements of moderation. Elements of religious moderation are needed in learning planning documents and textbook documents. The learning planning needed creates an inclusive learning environment, encourages cooperation, develops character values, increases religious understanding, and strengthens student character formation. The required teaching materials contain descriptions that provide a broad understanding of moderation, promote spiritual values, and assist students in character development.

Keywords: Conflict; Learning tools; Moderation; Needs analysis

Introduction

The G20 Presidency Meeting in Indonesia in 2022 carries the theme "Recover Together, Rise Mighty". Through this theme, Indonesia invites the world community to work together, support each other to recover together, grow stronger and be sustainable in facing various global crises. One of the key words and challenges is "recover together". This indicates that living together in harmony is the main asset in achieving big goals. However, in the context of national and state life, living together to achieve the same vision has its own challenges in the current global era.

Since AFTA (ASEAN Free Trade Area) was agreed as an adaptation of Southeast Asian countries to the world free market, it has brought new dynamics to the lives of world, regional and local communities. There is migration of goods and people between countries and within countries. In Indonesia, there is mobilization of people from one place to another or from one community to another for various purposes. The impact is the formation of multicultural communities in urban and rural areas with a diversity of religions, customs, languages, understandings, sects, and so on.

At the same time, the pace of development of science and technology, which was marked by the

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emergence of the industrial revolution 4.0 in Germany, which was followed by the civilization revolution 5.0 in Japan, could no longer be avoided. Research developments in the fields of nanoscience, semiconductors, cognitive science, and information technology have caused a new explosion in human civilization. All aspects of life use and depend on information technology devices. The dimensions of space and time are no longer a barrier to communication relationships between individuals. This progress has increasingly fueled the euphoria of people's freedom to do whatever they want. Everyone can express something of what they think in the public media space, without thinking about whether this expression has good or bad implications for other people. Meanwhile, legal institutions always move slowly compared to developments in information technology (Arif, 2013; Rohmy et al., 2021).

The accumulation of living space with multicultural conditions coupled with freedom of expression in the information era threatens the commitment to togetherness in life. In multicultural communities, social interactions occur that have the potential to cause conflict (Suppiah et al., 2019), such as fights between residents, fights between villages, radicalism, terrorism, acts of violence, bullying, and so on. In Indonesia, radicalism and terrorism in the name of religion still shows its presence in various cases (Azis et al., 2021). The conflicts that have occurred have formed opinion trends in certain places and certain motives, giving rise to the clustering of areas or regions into conflict-prone areas.

West Nusa Tenggara is also one of the conflict-prone areas in Indonesia (Widayat, 2018; Nasrullah et al., 2019). Various conflicts occur, such as fights between villages (Irawan, 2020), attacks on certain religious groups, religious conflicts, fights between tribes, and cases of terrorism (Arihan et al., 2018). Fights between villages in several places in NTB seem to be an annual ritual for the community. Various incidents of riots based on religion, religious beliefs, schools of thought and ethnicity are occurring more frequently, thereby reducing the image of NTB in the eyes of other regions nationally and even in the eyes of other countries. Wahab (2014) identified various causes of religious conflict, including blasphemy against certain religions, marriages of people of different religions, welcoming religious holidays, building worship facilities, and death ceremonies.

Conflict in multicultural societies such as in West Nusa Tenggara begins with a misunderstanding of something by two or more groups of people. In the context of religious conflict, it is caused by a lack of deep understanding of differences (Ogharanduku & Tinuoye, 2020), a weak understanding of religious moderation, and a wrong understanding of religion (Mandaville & Nozell, 2017) Radicalism or extremism occurs due to a lack of deep understanding of religious teachings, a tendency to take the textual meaning of the contents of books, and a blind fanatical attitude. On the other hand, when someone tries to understand religion in depth, he will be more moderate (Aziz et al., 2019).

Conflict begins with misunderstandings and rushing into something, without being preceded by a critical thinking process regarding a problem. Thinking critically is very important in dealing with events and issues that develop in a multicultural society (Rizki et al., 2021; Andayani, 2020). Shaw et al. (2020) revealed that critical thinking is a cognitive skill that is very necessary in 21st-century life as the demands of modern society and global trends increase. Critical thinking is needed to intelligently assess information and reason to decide before doing something, as stated by van Laar et al. (2020), critical thinking refers to making informed choices using sufficient reflection and reasoning and assessing skillfully, so as to decide what information or communication is relevant in a particular context.

Strengthening religious moderation is very important to build a national culture and character that supports sustainable development. Religious moderation is important to suppress one-sided truth claims and consider those who are right while others are wrong. An Indonesia that respects each other, appreciates, is tolerant, and peaceful can be achieved with a strategy of strengthening religious moderation. Religious moderation is a condition of life that is mutually tolerant without conflict regarding existing differences by means of mutual respect, mutual harmony, and mutual respect for each other. Harmonization of society and social balance can occur if all components of a multicultural society position themselves appropriately.

Strengthening religious moderation can be realized through learning. According to Sari et al. (2018), well-planned learning will be able to build attitudes and behavior of religious moderation. Learning must be designed in such a way as to prepare students who display religious moderation behavior to carry themselves as local, national and global citizens (Sulaiman et al., 2022). The learning system must provide space for students to have knowledge and skills regarding religious moderation. Theoretically and practically, what students gain through theory and practice in the classroom is what becomes their reference in socializing in society.

Learning by strengthening religious moderation requires a set of appropriate learning plans, namely learning tools based on religious moderation and critical thinking skills. According to Sesiorina, (2014), as an important component in learning, learning tools must be

designed or developed in order to fulfill certain needs or objectives. So it is important to develop learning tools based on religious moderation. Learning tools must be developed to support the learning process. In developing learning tools, the initial stage that is needed is a development needs analysis.

Currently, the implementation of learning that emphasizes processes fostering religious moderation has not been evident (Budiasih & Dewi, 2023). Preliminary discussions with middle school science teachers in West Nusa Tenggara indicate that they are only familiar with values instilled during instruction, such as attitudes or character traits like critical thinking, empathy, cooperation, and social sensitivity. Religious moderation reinforcement in learning is not yet widely recognized. This occurs due to the unavailability of instructional tools, such as teaching materials, student worksheets, and lesson plans that incorporate messages of religious moderation. Therefore, the development of instructional tools based on religious moderation is necessary as a reference for teachers. Valid, effective, and appropriate instructional tools must undergo a development process preceded by a needs analysis.

Needs analysis in developing learning tools is very important to ensure that the learning tools developed can meet user needs and desired learning objectives (Berlian et al., 2023; Goldberg & Crocombe, 2017). Needs analysis will produce learning materials according to student needs (Febrian et al., 2021) and learning is progressing well (Habibah & Fauzi, 2023; Hestiningtyas et al., 2023). By conducting a needs analysis, developers can identify existing problems in ongoing learning, determine goals (He, 2014) and learning targets to be achieved, as well as understand user needs and the learning environment (Grant, 2002) Needs analysis helps developers to determine the most appropriate type of learning device to use (Nugraha et al., 2018), such as whether it is a web-based learning device, mobile application, or desktop software. Apart from that, needs analysis can also help in determining appropriate content and teaching methods to achieve learning goals (Astika, 2015). This research was conducted to analyze the needs for developing learning tools based on religious moderation in schools in conflict-prone areas in West Nusa Tenggara.

There has not been any specific research that examines the learning needs of communities in conflict-prone areas. Several existing studies have developed learning tools without analyzing the needs of the community, Marzuki et al. (2018) developed tolerance-based citizenship education learning tools for conflict-prone areas, Saputra et al. (2022), developed picture story books based on NTB local wisdom to instill values-character values, and Akram et al. (2023) analyzed the need for developing ICT-based teaching materials. Several other studies examine the effects of learning models as conflict mitigation efforts, for example those conducted by Akhmad et al. (2020) examine the implementation of learning Pancasila values as an effort to mitigate social disasters, inter-ethnic conflict in NTB and Utami (2018) examine the prevention of violence against children. in the perspective of the right to security in West Nusa Tenggara.

Method

This research is qualitative research with a document analysis approach adopting the method of Sunstein et al. (2012) and a narrative analysis approach adopting William Stephenson's Q methodology (1935). Q methodology is a research method that combines quantitative and qualitative aspects in measuring the perspectives and subjective views of individuals or groups on a particular topic or phenomenon (Lee, 2017), which consists of eight stages; concept formulation, Q Set formation, subject sampling, Q Set sorting, Q matrix formation, data analysis and interpretation, understanding and interpreting results, and reporting results (Lundberg et al., 2020; Watts & Stenner, 2012).

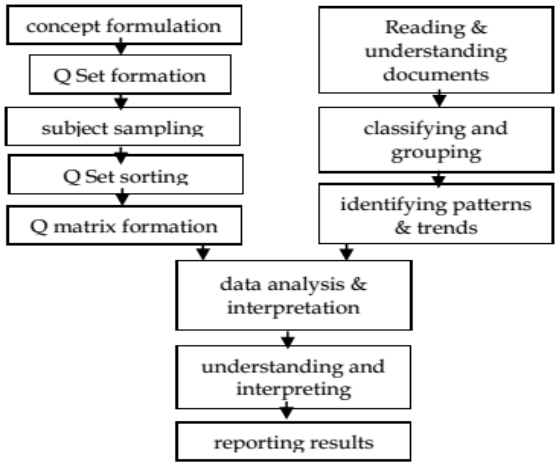

Figure 1. Research flow with narrative and document analysis

Document analysis focused on learning tool documents used by junior high school science teachers in conflict-prone areas. Stages of document analysis: reading and understanding documents, classifying and grouping, identifying patterns and trends, interpreting and analyzing meaning, writing and reporting findings (Sunstein & Chiseri-Strater, 2012). Q methodology focuses on research subjects through focus group discussions. These two approaches will ultimately produce a construct regarding the need to develop science learning tools based on religious moderation in conflict-prone areas (Figure 1).

The research subjects as key informants in the research were 20 people who came from conflict-prone

areas in West Nusa Tenggara. They consisted of 5 religious leaders, 5 district education supervisors, 5 school principals, and 5 science subject teachers who were taken using the purposive sampling method. Determining areas prone to conflict refers to http://ditintelkam.ntb.polri.go.id Religious figures are represented by; Muhammadiyah Organization administrators, Nahdlatul Ulama organization figures, Hindu religious figures, Christian religious figures, and Nahdlatul Wathan organization administrators in the districts of East Lombok, Central Lombok, West Lombok and Mataram City. School and madrasa supervisors are taken from supervisors at the Ministry of Religion office and the Education and Culture Service Office in the districts of East Lombok, Central Lombok, West Lombok and Mataram City. School principals and teachers are taken from schools located in areas prone to religious and social conflict in the district. East Lombok, Central Lombok, West Lombok, and Mataram City.

Data was collected using focus group discussion (FGD) techniques, in-depth interviews and documentation. Data resulting from document analysis were interpreted using Braund & Clarke's thematic analysis method with stages; identifying, classifying, and analyzing themes that emerge from the data (Braun & Clarke, 2006). The FGD results data were analyzed using narrative analysis. These two analyzes are to obtain conclusions regarding the need to develop learning tools based on religious moderation in schools in conflict-prone areas.

Result and Discussion

Analysis of the Availability of Learning Tools Based on Religious Moderation

In general, the learning tools used by science subject teachers in junior high schools in conflict-prone areas have not been designed based on moderation. In general, learning tools have not been a priority to be used as basic capital to initiate and build more harmonious social relations for students.

Based on the results of in-depth discussions with science subject teachers and analysis of learning implementation plan documents in the 2013 Curriculum Tool for science subjects, it shows that religious moderation is not found in all components of the learning implementation plan. The element of religious moderation is found in the learning objective component, namely affective objectives. The selection of media and learning models is based solely on suitability for teaching materials or suitability for cognitive learning objectives. The learning steps are written sequentially according to the chosen learning strategy, however the elements of strengthening religious moderation are not written explicitly and are repeated in the introductory activities, this activity and the closing activities. In the evaluation component, test questions are developed in accordance with competency achievement indicators, but most of the questions do not have stem questions in the form of stimuli that encourage students to think at a higher level in order to build religious moderation.

Student worksheet. The student worksheets used by teachers are worksheets that are included in the textbook. Science teachers tend to use student worksheets that are already in each chapter of the textbook they use in teaching. The existing student worksheets direct students to work in groups to complete experimental tasks, observations, projects, discussions and presentation of results. Most of the questions and tasks on student worksheets contain questions or tasks for analysis, in this case asking students to use higher level thinking skills.

Science textbooks commonly used by teachers in junior high schools in conflict-prone areas generally vary. The books used are those published by the Ministry of Education and Culture. Erlangga X-Press US, PT. Tiga Serangkai Pustaka Mandiri, and PT Intan Pariwara. Each school prepares textbooks for each student. Some others are not available for every student. The results of interviews with teachers and students show that schools that have a limited number of copies of books are due to minimal availability in schools. According to the teacher, initially the number of books was according to the number of students, but because some were lost, currently not all students have received a share of the textbooks.

The chapter components in Natural Sciences textbooks published by the Center for Curriculum and Books, Balitbang, Ministry of Education and Culture are presented in the table 1. Table 1 shows that science textbooks in junior high schools do not fully contain supporting elements for religious moderation for students. The chapter components do not explicitly provide an overview of the material's connection to religious moderation. The element of religious moderation is only found in the reflection component, where students are invited to think about the relationship between the material being studied and the power of the Creator. The Let's Do component only contains the stages of student activity in carrying out scientific activities as in the case of a student worksheet or student worksheet. Does not include organizing students in collaborative work.

For this reason, the content aspect of textbooks requires textbooks for students in conflict-prone areas to contain explicit elements of moderation. Learning objectives should be added to the chapter component and include explicit objectives related to religious moderation. According to Song et al. (2021) learning

objectives reflect what is to be achieved. What is to be achieved in learning must be included in the learning objectives (Rosas-Rivera & Solovieva, 2023).

Table 1. Results of Analysis of Natural Science Textbooks for Middle Schools

Chapter Components	Description
Important terms	Contains important terms contained in the study material for the chapter.
let's do it	Contains how to carry out observation activities in order to support the process of searching for knowledge and practicing science skills. This section is a student work guide that requires students to work, think, and complete assignments. In this section there are also columns where students work on a task from the activities carried out. Each chapter consists of more than one type of activity (student work guide).
Let's learn and why is it important?	Contains a recap of the sub-materials described in the chapter material description. Also includes an explanation of the importance of studying the material from the aspect of knowledge, not its usefulness in everyday life.
Reflection	Descriptions to build awareness of the material that has been studied. The awareness that is built is awareness of God
Scientist Info	Contains brief descriptions of several scientific scientists who have contributed to the material studied.
Summary	Contains a summary of the material that has been presented in the chapter material description.
Competence test	Contains test questions to measure understanding of chapter material. The forms are short essays, multiple choice, essays, and problem solving.

The student worksheet element must include a description of how students work collaboratively in carrying out science activities to practice social skills. The element of reflection must be further enriched in the scope of thinking related to material other than divine aspects, such as its relationship to state, social and religious life. Learning must be a process that familiarizes students with working together in communities with different backgrounds, different skin colors, different academic abilities, and other differences. This is important to train students to accept each other, respect each other, respect each other, and harmony in differences. According to Dibble et al. (2019) learning must encourage students to respect each other. Students are given the opportunity to work collaboratively (Terkamo-Moisio et al., 2022; Sugiharto & Hidayati, 2022; Saputri et al., 2022) to get used to living together in diversity (Vangen & Winchester, 2014; Ingraham et al., 2016).

Analysis of Community Needs for Education based on Religious Moderation

The community's need for education based on religious moderation was revealed through focus group discussions (FGD) which were conducted. The general conclusion is that it is necessary to organize teaching materials and learning strategies to create learning that respects each other, accepts each other and respects each other. This conclusion was obtained through FGDs with educational figures across religious organizations, across religious sects, and interfaith educational figures (Figure 2).

The perspective of figures from the Nahdlatul Ulama religious organization in West Nusa Tenggara is presented as follows: The friction that occurs between community groups is not because of preaching, education, but because of politics. There is minimal space in the learning process. Discussions must be an increased portion of learning. The teacher gives lots of space for students to express their opinions. Regarding religious moderation, it is necessary to learn to play roles. There is nothing wrong with learning through tourism: natural tourism to places of worship of other religions to introduce other people's places of worship to build a sense of brotherhood and appreciation for differences.

Figure 2. Focus group discussion activities

According to figures from the Muhammadiyah religious organization, West Nusa Tenggara is: Students' manners or ethics with teachers, friends and other people must be included in the book. Adab must be prioritized based on science and science. Adab is the science of science. If students prioritize etiquette, then

their level of acceptance of other people is high. The urgency of divine values needs to be included in the text of the book. Narratives about "that everything will return to God". Knowledge about divinity must be the first to be received by students. That is the function of teachers who have maturity, not old ones. All human affairs return to two things; first, how people can believe in God well, second, how high their human feelings are.

The urgency of social behavior. If we treat other people well, we are actually a step towards success in life in the future. Rasulullah; The best human being is the one who makes fellow humans happy. Teachers must transfer all of that. Learning process: Strengthens encounters between students. Do you love your parents, your siblings? Direct and verbal interactions between teachers and students must be closer to both directions. Train students to present the results of their reading. Provide space for students to express themselves.

According to figures from the Nahdlatul Wathan religious organization West Nusa Tenggara as follows: This education can never be separated from the Islamic boarding school education method. The method is much more core than the material presented. Teachers are more important than everything. When children no longer discuss scientific content, but the flesh and blood of their daily lives. At the heart of the learning process there must be an introduction, an introduction; who created science. And that is the basic principle of science. Integration of material with religious values (this is general for all religions). Religious values that can be realized and implemented. The content of the book must contain educational content, if there is media/images, the content is still educational and contains religious content. And avoid content that could give rise to multiple interpretations for students and teachers. Learning process: the most important thing is to instill values, providing good educational examples needs to be strengthened. Does not differentiate between smart children and less intelligent children. Teachers and stakeholders must have a commitment to that. Teacher motivation must be based on the principle of sincerity. If the Islamic boarding school method could be applied by public schools, it would be very appropriate to make all of this happen.

According to Hindu and Christian religious figures in West Nusa Tenggara: Instilling character, must instill in children to carry out what they believe in or their beliefs. This belief should be used as a strength to embrace. Learning that respects each other and loves and embraces each other. Character cultivation in each subject is raised. Learning process: Teachers at all times and at all times emphasize increasing the character of independence, cooperation, sharing, starting from small things when they discuss inside and outside the classroom. Instill in students that we cannot live alone, we still need the help of other people, not only members of our community but also other people.

The perspective of education supervisors at the District Ministry of Religion Office and supervisors at the District Education and Culture Office in West Nusa Tenggara is: So far, learning about science subjects has gone straight into the content, ignoring how science relates to God. A preamble is needed regarding the relationship between science and Allah. Very few discuss the wisdom behind the diversity of living things, even though in science we learn a lot about the diversity of living things. Often discusses plants such as coconuts with fibrous roots. However, how useful it is for various human needs is not explained or discussed in detail by the teacher. Teachers teach love to others, especially to their teachers. The foundation of people knowing God is love. The value of love must really be introduced by the teacher in learning. There is no such thing as boredom, if there is love/mahabbah.

In-depth discussions with the head of junior high schools in conflict-prone areas of West Nusa Tenggara obtained the following results: Biodiversity, children are invited to nature to see diversity and maintain that diversity. Why are the creatures diverse. It turns out that diversity must be maintained. And that is what is instilled in students. This diversity illustrates moderation. The reference is taken from the holy book too. For example, try looking for verses from the Al-Quran that relate to this material. Al-Quran verses must be presented in learning. All from religious books. Learning process: Given the task of looking for verses from the Al-Quran related to the material. Develop students' thinking to see relationships with each other in nature. Heterogeneous study groups or in the form of visits are formed. Visiting between schools, whether from different organizations or others. This is to respect each other and not hate each other. Learning is more emphasized on religious studies. Tolerance towards other religions and between religions must be instilled. Instill the belief that we were created by God to be the same. Instill an attitude of mutual respect for each other. We need to organize students to be able to collaborate between those who are different in several ways.

In-depth discussions with science subject teachers at junior high schools in conflict-prone areas of West Nusa Tenggara obtained the following results: Learning tools and science learning processes need to be linked to instilling an attitude of tolerance in students. Students need to instill a sense of love for themselves, their other friends and their environment. and they do it without coercion. In the lesson there is a food theme, students can be invited to eat together. They are invited to share side dishes, exchange food, and so on. Activities to clean the environment and classrooms must be carried out together with the teacher, not just the children, so that

children are instilled with the character to protect themselves and the school environment. We start from classroom culture, starting with instilling respect for differences, learning openly and tolerantly. Discuss various similarities to build a sense of mutual peace and respect for differences. Work with heterogeneous groups. Encounters with children who have differences must be included in learning tools and science learning activities. In today's modern era, there is a need to integrate local wisdom in learning. It is hoped that it can stem the influence of modernization. Because in the current era there are many actions that damage the value of unity. Strategy: Class management that combines various differences, for example creating class confidence, arranging seating patterns by combining, involving students in various learning processes. Determine or create a method that suits the characteristics of students.

From these views it is revealed that the expected science learning tools are; the teaching materials and learning strategies contained in the learning implementation plan must have a specific description of the relationship between science and the Creator. This description must be presented at the beginning of the teaching material or in the introductory activities in the learning implementation plan. Learning with a group work design should be carried out as often as possible by prioritizing material or materials in the form of problems to trigger students to think. In line with research results Mansour et al. (2017), group work in learning is able to create positive group experiences among students and change their past negative experiences into positive experiences. Learning with a group work design provides a cooperative and collaborative learning environment for students which results in a positive group work experience (Elmassah et al., 2020).

According to FGD resource persons, important elements that must be present in teaching materials are; there is a description of the relationship between matter and the Creator, a component that asks students to think about the relationship between matter and the relationship between humans and God and the relationship between humans and other creatures and nature, character components related to matter; character towards oneself, God, the environment and society, references from the Holy Books of all religions, and image media that gives the impression of togetherness and living together, and the value of love.

The results of the discussion indicate the importance of developing teaching materials that integrate spiritual, social, and moral aspects, while considering universal values across various religions. The main objective is to cultivate a holistic understanding, a spirit of love, and interconnectedness in the context of learning, particularly in the case of science education in conflict-prone regional schools. Teaching materials, as a crucial component in the learning system, should be designed (Asrizal et al., 2023; Rahmatullah et al., 2023) or developed to fulfill specific needs or objectives (Yusuf, 2022).

According to the FGD resource person, the important elements that must be present in the learning strategy are; teacher activities connecting material studied with religious concepts, structuring students in collaborative thinking work groups, activities instilling character values directly and through analytical thinking processes, learning activities visiting various places of worship other religions, learning activities visiting social organization schools or other religious organizations, assignments to search for religious concepts related to material, and teachers modeling behaviors that are examples of the character being instilled.

This data provides information about the elements considered important by FGD resource persons in developing learning strategies. This shows the importance of integrating religion, student collaboration, character values, visits to places of worship and other organizations, assignments to search for religious concepts, and modeling teacher behavior in learning. Integrating religion in learning can help students understand and appreciate religious differences, as well as promote intercultural understanding. This is important for creating harmony and reducing interreligious conflict (Mansour & Elmasry, 2017).

Conclusion

Science learning tools in junior high schools in conflict-prone areas do not yet fully contain the value of religious moderation. In the learning planning documents and textbooks, no message of religious moderation was found in all components. Science learning tools for students in conflict-prone areas require explicit elements of moderation. Elements of religious moderation are needed in learning planning documents and textbook documents. The required preparation of teaching materials is to contain descriptions that provide a broad understanding of moderation, promote spiritual values, and assist students in developing good character. Junior high schools in conflict-prone areas require elements of religious moderation in developing science learning strategies. This is expected to create an inclusive learning environment, encourage cooperation, develop character values, increase religious understanding, and strengthen student character formation.

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Conflicts of Interest
The publication of this article was carried out as a form of implementing the research stage, namely dissemination. The aim is to provide widespread information about the success of product development and the benefits it can provide in the learning process.

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