

## ISLAMIC VALUES INTEGRATED LEARNING MEDIA IN SMA

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**Abstract.** The purpose of this study was to review research trends on chemistry learning media integrated with Islamic values in high school. This literature study uses the PRISMA Systematic Literature Review model which examines articles about chemistry learning media integrated with Islamic values in high school that were published in the last 5 years (2017-2022). Article searches are only carried out on the Google Scholar and Research Gate databases. The keywords used are integrated chemistry learning media and chemistry learning media in high school. Furthermore, the articles analyzed were journals accredited by Sinta and reviewed journals. The results of chemistry education media that integrate Islamic values in high school criteria are: 1. Audio Learning Media by 82.50% 2. Visual Learning Media in the form of integrated comics by 80%, integrated LKPD media by 84%, 3. Technology-based learning media in the form of integrated DVC by 22.9%, and our power point media is 0.89 in the valid category. However, this study also shows that chemistry learning media integrated with Islamic values in high school still has minimal application in the field.

**Keywords:** media, chemistry learning, systematic literature review of the PRISMA model

### INTRODUCTION

Learning media is the media used in learning, which includes teacher aids in teaching as well as means of conveying messages from learning sources to recipients of learning messages (students). As presenters and distributors of messages, learning media in certain cases can represent teachers presenting learning information to students (Mustika et al., 2018). If the media is designed and developed properly, then this function will be able to optimize student learning outcomes. The use of media can help the process of delivering material, presenting material more clearly and interestingly, eliciting interaction, time and energy efficiency, fostering a positive attitude towards learning processes and materials.

Chemistry is a material that is quite difficult to understand (Ajani, 2019) (Fauzan et al., 2020) by many students at the high school level which creates a negative mindset that can affect the cognitive, affective, psychomotor and scientific processes (Wahyuni et al., 2018). One aspect that is influenced by this mindset is students' interest in learning, even though interest in learning is a very important aspect in learning chemistry (Harefa et al., 2020). Chemistry is one of the materials that is quite complex from the aspect of understanding which is not only based on the material, but this learning must be studied in three aspects, namely, macroscopic, microscopic, and symbolic (Harianto et al., 2019) (Ering et al., 2018). Chemistry is an abstract subject (Apriani et al., 2021) (Ewais et al., 2021), has a lot of formulas, that's why this chemistry lesson is difficult for students to understand so that it can affect student learning outcomes. It is hoped that student learning in Chemistry lessons can be enhanced by having interesting teaching media. A media can be said to be efficient if it is easy to use and appropriate and does not take up much time and space.

On the other hand, the development of science and technology is increasingly encouraging renewal efforts in the use of technological results in the learning process. Educators are required to be able to use the media that can be provided by the school, and it is possible that the media is in

accordance with the developments and demands of the times. In addition, educators are also required to be able to develop skills in making learning media that will be used if the media is not yet available. For this reason, educators must have sufficient knowledge and understanding of learning media. Even though the initial goal of learning is good, if it is not supported by the right media, the good goal is very difficult to achieve properly.

Chemistry as a product means that its studies are related to laws and theories that have been studied by scientists. Chemistry as a meaningful process in getting chemistry requires scientific work to study the object. Chemistry as an attitude means that in learning chemistry one can cultivate one's personal character. With the existence of chemical characteristics as an attitude, the values of Islamic education can be integrated into the learning process (Munandar et al., 2015). Chemistry is a science that studies the composition and changes in properties of objects that require space. The basic material studied in chemistry is the atom. The subject of discussion of atoms is often underestimated to be studied more deeply. As a result, for further learning material, students have difficulty imagining what the actual conditions and properties of atoms are like. (Rorita et al., 2018)

Developing integrated learning materials between Islam and Science in science subjects is an effort to present value-based scholarship as an effort to increase and foster students' awareness from intellectual, emotional and spiritual aspects. This is done so that the impression of general subjects that have not contributed to moral and moral education to increase the faith and piety of students is not proven by the teaching media that exist today tend to only develop knowledge and skill competencies, but ignore the achievement of spiritual attitude competencies and social attitude competencies. (Okmarisa et al., 2016). However, learning media in the form of textbooks, modules and leaflets are considered to be obsolete and boring. This is because printed learning media only contains material with less discussion which makes students more interested in the lesson and the lack of sample images, so it does not generate a sense of interest in students to read it. (Rahma et al., 2017). Therefore, it is a must for every educator or prospective educator to be able to choose, prepare and create their own innovative learning media according to their needs. The selection of media such as teaching materials can provide maximum benefits if it suits the needs of the user (Mahartika et al., 2020). The addition of the integration of religious values into a chemistry learning concept is expected to have a positive influence in the context of instilling students' faith values and integrating them in science and technology so as to form and foster students' positive attitudes in everyday life. (Rahma et al., 2017)

An Islamic education system that integrates and harmonizes the interests of the world and the hereafter in achieving the principles of educational goals is stated in Al-Qur'an Surah Al-Qashash verse 77. Integration is the key word guaranteeing that there is no separation and disconnection between religion and science. One of the famous physicists, Albert Einstein once said: "Science without religion is lame, religion without science is blind." which means: "science without religion is lame, religion without science is blind." Long before Einstein, the Islamic religion had considered science and religion important. Even the first revelation received by the Prophet Muhammad SAW actually contained an order to master knowledge on the basis of faith in the letter QS Al'Alaq: 1-5[4]. (Yenti & Writers, 2020)

At the time of the Prophet SAW, teaching and learning activities were known, so if we look back at the time of the Prophet SAW, actually the learning media itself already existed and had been applied by Rasulullah SAW. In teaching science to his friends, he cannot be separated from the existence of the media as a means of conveying Islamic religious teachings. Based on the information above, it can be said that the media is an integral part of the teaching and learning process in order to achieve the goals of Islamic education.

Based on the results of the explanation above, it is necessary to make efforts to overcome these obstacles by developing designs and trials of learning media integrated with Islamic values in high schools so that learning activities run optimally and can improve the quality of learning in schools.

## RESEARCH METHOD

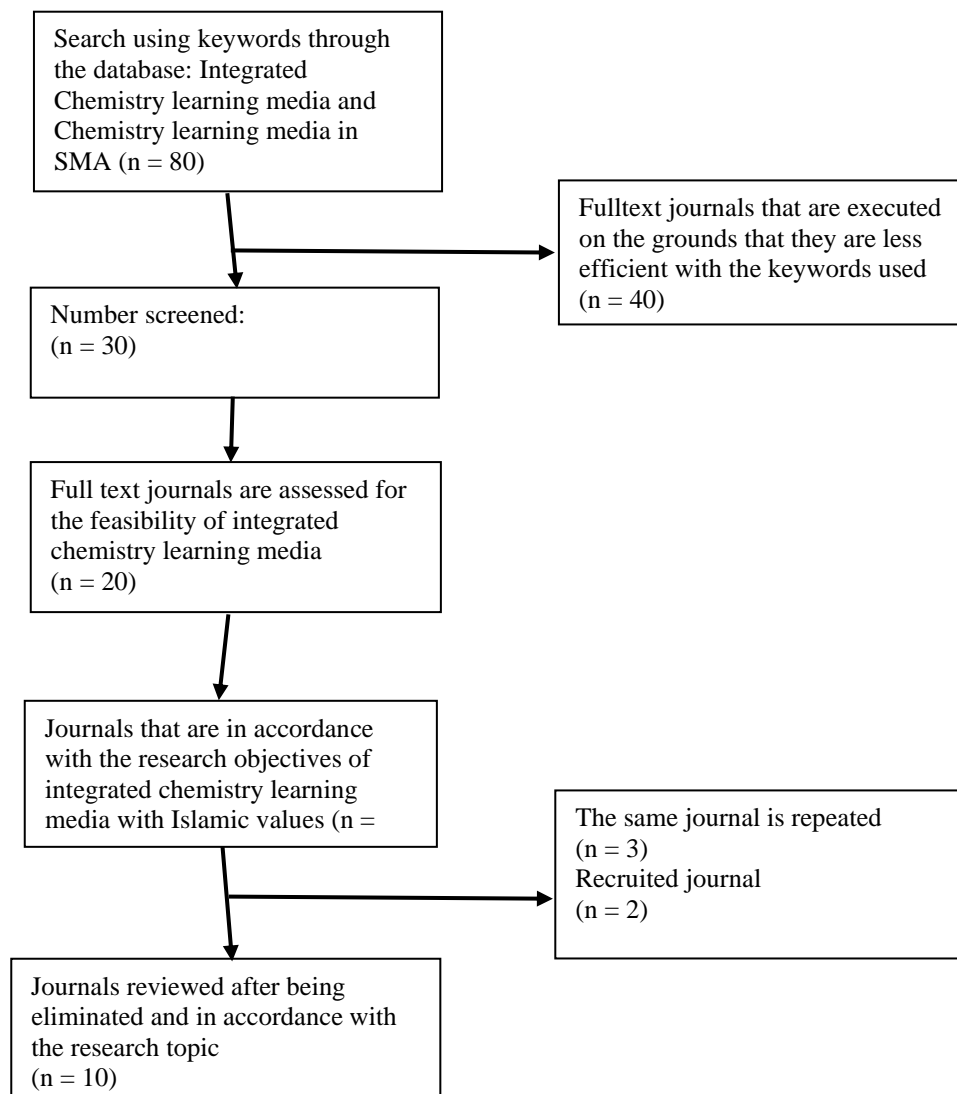
The literature that the author discusses is about reviewing chemistry learning media integrated with Islamic values in high school by limiting the year of articles or journals from 2017-2022. For literature, the author uses the type of accredited journal literature, literature references are taken from the literature search engine, namely Google Scholar. The author does not limit certain publishers (Faizah & Widyastuti, 2022). The author only uses literature published from 2017 until now in order to get the most up-to-date literature.

References from the search process will undergo several stages of filtering. In the first screening the authors eliminated journals that discussed Islamic values-integrated chemistry learning media in high school. Then a title screening was carried out to eliminate some of the same literature. In the next screening, the suitability between the title and the topic reviewed is carried out. Then read the abstract to find out whether the literature is in accordance with the topic discussed. After that, the process of reading the contents of the literature as a whole was carried out. Then choose some literature that really fits the topic to be reviewed. After obtaining the appropriate literature, the literature is read in more detail to review the contents of the existing literature.

The results of the review are then made into a summary to facilitate the comparison process. The summary contains: The results of these are poured into a table which will be a reference for comparison of the literature used. So as to produce specific data from each literature on the efficiency of the use of the PRISMA method on Islamic values integrated chemistry learning media in high school.

The results of the review are then made into a summary to facilitate the comparison process. The summary contains: 1) Chemistry Learning Media 2) Chemistry Learning Media Integrated with Islamic Values 3) Distribution of Integrated Media According to the Qur'an 4) Predictive results obtained from each literature. The results of these are poured into a table which will be a reference for comparison of the literature used. So as to produce specific data from each literature on the efficiency of using the PRISMA method on Literacy and Technology-Based Chemistry Learning Strategies in Supporting Student Learning Interests

The PRISMA diagram in SRL's research on chemistry learning media integrated with Islamic values in high school is as follows:



The possibility of misinterpretation by the author is due to differences in the use of datasets from each literature. Therefore, the main key that is focused in this systematic review is the results obtained from Literacy and Technology-Based Chemistry Learning Strategies in Supporting Student Learning Interests.

## RESULT AND ANALYSIS

Based on data from the literature review activities that have been carried out, it was found that 10 journals related to Islamic Values Integrated Learning Media in SMA are in the table below.

**Table 1.** Research Data

No.	Media Category	Writer's name	Year	Title	Research Methods
1.	Audio Media	Buchori Muslim, Munasprianto Ramli, and Ulfah Nursarifah	2021	Development of Islamic Integrated Chemistry Animation Videos on Atomic Structure Material	Research and Development (R&D)
2.	Visual Media	Nelis Suprianingsih <sup>1</sup> , Elvi Yenti, Yenni Kurniawati	2022	Development of Islamic integrated comic teaching materials on the nature of chemistry	Research and Development (R&D) with the Borg and Gall development model
		Ayu Rahayu	2021	Improving Student Learning Outcomes Through Integrated Kimuno Learning Media Islamic Values	mental pre-experimental research with one group pretest posttest design
		Ayu Rahayu, Sudding <sup>1</sup> , Hasri <sup>2</sup>	2018	Development of Kimuno Card Media (Kimia Uno) on Periodic Table of Elements Combined with Islamic Values	Research and Development (R&D)
		Mimi Herman <sup>1</sup> , Elvy Rahmi Mawarnis, Dalia Ramadhani <sup>s</sup> , Hidayat Herman	2022	Development of E-LKPD Assisted with Augmented Reality Integrated Islamic Values in Electrolyte Solution Material	This study uses Research and Development with define, design, develop and disseminate models. I
		Riska Yusniawan, Muhammad Isnaini, Etrie Jayanti	2019	Development of Student Worksheets (LKPD) Integrated Chemistry with Islamic Values in Hydrocarbon Material	the Borg & Gal model
		Egi Writer, Elvi Yenti	2020	Design and Trial of Islamic Integrated Student Worksheets (Lkpd) on Chemical Elements	Research and Development (R&D)
3.	Technology Based Media	Veny Nugiasari and Guspatni Guspatni	2021	Learning Media Development Power point-iSpring Integrated Multiple Chemical Representations on Acidic Materials	Research and Development (R&D)

				Language Class XI SMA / MA	
		Nia Desliana Sari and Rian Vebrianto	2017	Development of Interactive Multimedia for learning chemistry colloid material integrated with Islamic values: literature study	Qualitative Descriptive Analysis Literature Study
		Siti Zainatur Rahmah	2017	Development of Sets-Based Modules (Science, Environment, Technology, Society) Integrated Islamic Values at SMAi Surabaya on Chemical Bonds Material	Research and Development (R&D)

Learning media is a prominent aspect in the success of a learning process. Discussing learning media first, the writer will distinguish it from media / educational tools. Learning media is basically part of educational media/tools, because learning media is one big part of the two parts of educational media. Media/educational tools include two kinds, namely:

1. The actions of educators (commonly called software or immaterial); includes advice, examples, prohibitions, orders, praise, reprimands, threats and punishments
2. Objects as tools (can be called hardware or material); includes study tables, chairs, blackboards, erasers, chalk, books, maps, OHPs, and so on.(Haris et al., 2018)In accordance with the opinion above, the focus of this learning media description is on the second part of the educational tool. But the author will also describe in a simple way about educational tools in the first part above.

From the table listed above, we can divide several clusters of learning media stated in the Qur'an and al-Hadith, as follows:

### 1.1. Audio Learning Media

Audio learning media is media that can only be heard, in the form of sound with various means of conveying voices from both humans and imhumans. The propositions related to sound as a source of conveying messages can be taken from the words read, explain, tell, and other meaningful words. In this case there are several verses that provide information about the existence of audio learning media in the Qur'an, including surah al-'Alaq (96); 1, Al-Isra' (17): 14, Al-Ankabut (29); 45, Al-Muzammil (73); 20. Here is Al-Muzammil (73); 20:

Meaning: "... then they said: "Do you tell them (the believers) what Allah has explained to you, so that by doing so they can defeat your argument before your Lord; don't you understand?"

From the verbs "read, explain, and tell", the above will of course generate sound or voice so that it can be understood what the content is being conveyed, and there may also be teachers who convey learning material by simply reading books/books that are used as a reference in a lesson. However, what is emphasized more than the words read, explain, and tell is the sound that can convey learning material. (Muslim et al., 2021)

The relationship between audio education media and the learning objectives of Islamic religious education is very close. From a cognitive point of view, audio media can be used to teach various rules and principles, from an affective perspective, audio media can create a learning atmosphere, and from a psychomotor aspect, audio media is used to teach verbal skill media. As an auditive medium, this media is closely related to radio, magnetic tape recorders, gramophone records, or maybe language laboratories.(Hardianto, 2016)

The advantages of audio media namely:

- 1) By using a recording device, the audio program can be used according to the needs of the listener/user.
- 2) Audio media can train students to develop abstract imagination.
- 3) Audio media can stimulate the active participation of listeners. For example, while listening to broadcasts, students can carry out other activities that support the achievement of goals.
- 4) Audio programs can arouse students' curiosity about something, so that it can stimulate creativity.
- 5) Audio media can instill positive values and attitudes towards listeners which are difficult to achieve with other media.

In addition to several advantages, this media also has several disadvantages as follows:

- 1) The nature of one-way communication (one way communication). Thus, it is difficult for listeners to discuss things that are hard to understand.
- 2) Audio media that uses more sound or verbal language, may only be understood by listeners who have a good level of mastery of words and language.
- 3) Audio media will only be able to serve well for those who are able to think abstractly.
- 4) Presentation of material through audio media can lead to verbalism for listeners.
- 5) Audio media that use radio broadcast programs, are usually carried out simultaneously and centrally, making it difficult to control. (Hery et al., 2020).

From the table above, it can be seen that the results of the evaluation of the Islamic Integrated Chemistry Animation video product on Atomic Structure Material by media experts amounted to 82.50%

## 1.2. Visual Learning Media

Visual learning media is a set of tools for conveying messages in learning that can be captured through the senses of sight without sound from the tool. In the Al-Qur'an surah Al-Baqarah (2) 31:

Meaning: "And He taught Adam all the Names (objects), then presented them to the Angels and then said: "Tell Me the names of those things if you are truly righteous people!" From this verse, Allah taught Prophet Adam the names of all objects on earth. Then Allah ordered the angels to mention them, which the angels did not really know. The objects mentioned by Prophet Adam as ordered by Allah swt. of course, has been given a description of its shape by Allah swt. In the hadith there are several terms used to indicate the use of visual media in learning, such as pictures, gravel and fingers.

### a. Using pictures

The use of visual media images was used by the Prophet Muhammad SAW in the learning process, this is as in the hadith narrated by Al-Bukhari 21 in Abu Hasan As-Sindy. 22 Prophet Muhammad SAW explained:

Meaning: "Has told us Sodaqoh bin Fadhil, has given news to me Yahya bin Sa'id from Sofyan, he said: My father has told me from Mundzir from Robi 'bin Khusein and Abdullah RA, He said: The Prophet SAW once made a line (draw) a rectangle and make another line in the middle until it goes out of the (rectangle) boundary, then he makes many small lines leading to the center line from the sides of the border line, then he says: This is the picture of a human being. This rectangular line is the death that will surely befall him, while the line that emerges is his wishful thinking, and these small lines are the various trials and calamities that are ready to confront him. If he is free from one ordeal, another will surely befall him. if he is free from the other trials, there will surely be another trial. (Narrated by Imam Bukhari)". An example of this media image is in the form of:

### 1. comic,

Based on the results of the review, the preliminary analysis study requires Islamic-integrated learning media, in this case the designed media product is a special chemical comic on the nature

of chemistry found in the journal "Development of Islamic integrated comic teaching materials on the nature of chemistry." (Suprianingsih et al., 2022) with the Development (R&D) method with the Borg and Gall development model. After the preliminary analysis activities have been carried out, then proceed to the planning stage which aims to produce chemical comic designs designed using Microsoft Word 2007, Picsart, Color, and Paint software so as to produce products in the form of Islamic integrated comics on the material nature of chemistry. The feasibility of integrated Islamic comics on the nature of chemistry is based on: (a) Validation by material experts reaches a percentage of 92.08% with very valid criteria, validation by Islamic religious experts reaches a percentage of 76% with valid criteria, and validation by media experts reached a percentage of 89.52% with very valid criteria; (b) The chemistry teacher's assessment through practicality tests obtained a percentage of 86, 81% with very practical criteria; (c) The response of class X Science 1 students at MA Darul Hikmah Pekanbaru to the overall integrated Islamic comic design on the material of the nature of chemistry is 80% with very good and interesting criteria and is able to provide additional religious knowledge, especially in the field of chemical science. (Suprianingsih et al., 2022).

2. Apart from comics, there is also media in the form of LKPD

according to the results of the review that we have found in the journal article "Development of E-LKPD Assisted by Augmented Reality Integrated Islamic Values in Electrolyte Solution Material" (Herman et al., 2022), "Development of Student Worksheets (LKPD) Integrated Chemistry with Islamic Values in Hydrocarbon Material" (Yusniawan et al., 2019), "Design and Trial of Islamic Integrated Student Worksheets (Lkpd) on Chemical Elements" (Yenti & Writers, 2020) The validity level of student worksheets based on the validity test of integrated Islamic student worksheets on elemental chemistry has a validity level of 84% for chemical material experts, religious material experts and media experts, which is in the very valid category. (Yenti & Writers, 2020).

3. KIMUNO (Uno Chemistry)

From the journal articles that have been reviewed in the form of journals namely "Improving Student Learning Outcomes Through Integrated Kimuno Learning Media Islamic Values", (Ayu Rahayu), "Development of Kimuno Card Media (Kimia Uno) on Periodic Table of Elements Combined with Islamic Values" (Ayu Rahayu, Sudding, Hasri). The results of the study showed that there was an increase in student learning outcomes at the pretest and posttest which were in the moderate improvement category which could be seen from the average main score of 0.5. The presentation of students' pretest scores was 47% while the presentation of students' posttest scores was 77%. (Rahayu, 2019) (Herman et al., 2022) (Yusniawan et al., 2019)

b. Non-projected media

- 1) Reading materials or printed materials; Through this material students will gain experience through reading, learn through symbols and meanings by using the sense of sight. This media includes the level of conceptual learning, so the materials must be adapted to the level of understanding and mastery of the students' language.
- 2) Reality media are real objects. These objects do not have to be presented in the classroom, but students can look directly at the object. The advantage of this reality media is that it can provide real experiences to students. For example, to study the diversity of living things, the classification of living things, ecosystems, and plant organs.
- 3) Model is an artificial object in three dimensions which is a representation or substitute for the real object. The use of models to overcome certain obstacles as a substitute for reality.
- 4) Graphic media is classified as a visual media that conveys messages through visual symbols. The function of graphic media is to attract attention, clarify lesson presentations, and



illustrate facts or concepts that are easily forgotten if only done through verbal explanations. The types of graphic media are: pictures, sketches, diagrams/schemes, charts/charts, graphs.

- 5) Blackboard; This tool is a classic tool that people never forget in the teaching and learning process. The role of blackboards and other boards is still used by teachers, because they are practical and economical tools.

c. Projection media

- 1) OHP transparency is a true face-to-face teaching aid, because the layout of the classroom remains as usual, teachers can meet face to face with students (without having to turn their backs on students). Transparency media tools include software (Overhead transparency/OHT) and hardware (Overhead projector/OHP).
- 2) LCD (Liquid Crystal Display) is a set of tools as a technique for presenting data in the form of opaque crystal letters when present in a certain electric field. This tool is more complete than the OHP in projecting information directly through the computer. The LCD changes the computer display from an electronic image to a projection screen. What's interesting about using this LCD is the ability to produce the same image quality as using a regular OHT. LCD technology can also display pictures (pictures), colors (colors) and movement (animated). With the LCD the message is designed in the computer and the results are projected onto the screen, the act of pointing is performed with the "mouse" on the computer.(Wahidin & Syaefuddin, 2018)

### 1.3. Technology-based Learning Media

The forerunner of the use of technology in communication including communication in learning. This is expressed in surah An-Naml (27) 29 – 30, which is about the story of Prophet Sulaiman and Queen Balkis;

Meaning: "(28) Go with (bring) this letter of mine, then drop it on them, then turn away from them, then pay attention to what they are talking about." to me a noble letter, (30) Verily the letter, from Solomon and Truly (contents) it: "In the name of Allah, Most Gracious, Most Merciful.

Examples of technology-based learning media namely

#### 1. VDC

The results of the review were found in the journal article "Improving the chemistry teaching-learning process through the use of VCDs at the Muhammadiyah High School Pekanbaru" Asmadi Muhammad Noer). This classroom action research uses VCDs in the learning process (chemistry, science). The results showed an increase in students' interest (motivation) in learning chemistry and this was also indicated by the increased learning evaluation results. The average score of students using the VCD program was 74.23 with complete learning 71.16 (%). Meanwhile, the average value of students without VCD was 62.20 and student completeness was 45.30 (%). Increased learning outcomes by 22.9 (%). . The VCD program is very attractive to students and this is shown from the results of the student questionnaire. Where is the rating of 3.95 (scale 5).

#### 2. Power point- I spiring

according to the results of the review that we have found FROM THE JOURNAL The results of the review journal obtained from the journal article "*Development of Integrated Power point-iSpring Learning Media Multiple Chemical Representations on Acid-Base Material Class XI SMA/MA*" (Veny Nugiasari and Guspatni), with the research and development (r&d) method, the results were obtained in the form of

the validity category is very high and the average value of V using the Aiken's V technique is 0.89 with the valid category.(Nugiasari & Guspatni, 2020)

Thus, in learning you should be able to use media that can facilitate communication in the process, and use facilities that can make students comfortable, so that learning can achieve its goals to the fullest. The use of technology in learning in the present (modern), of course, has

differences in its form. Today's technology-based learning media is very advanced and quite varied, still open for more sophisticated future.

## CONCLUSION

Journal of the results of a review of chemistry education media that integrates Islamic values in high school, the criteria are:

1. Audio Learning Media of 82.50%
2. Visual Learning Media in the form of integrated comics by 80%, integrated LKPD media by 84%, KIMUNO (Kimio Uno). The presentation of students' pretest scores is 47% while the presentation of students' posttest scores is 77%.
3. Technology-based learning media in the form of an integrated DVC of 22.9%, and our power point media is 0.89 in the valid category.

Chemistry education media that integrates Islamic values in high school is still widely used in the research stage but has not been implemented in class. So this study also shows that chemistry learning media integrated with Islamic values in high school still has minimal application in the field and it is necessary to evaluate the application of the media. Chemistry learning integrates Islamic values on classroom learning to see the effect on students' attitudes and character.

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