SCIENCE TEACHER'S BOOK: ANALYZING ELEMENTARY SCHOOL STUDENTS' CHARACTER VALUES

Asrial[1,*] , Syahrial[1] , Husni Sabil[1] , Josephine Ryan[2] , Robyn Cox[3] , Marie Emmitt[2], Rahmi[4]

[1] Faculty of Teaching and Education, Universitas Jambi, Jambi, Indonesia
[2] Australian Catholic University, Sydney, Australia
[4] RMIT University, Melbourne, Australia
[5] Universitas Muhammadiyah Sumatera Barat, Sumatera Barat, Indonesia
Corresponding author email: asrial@unja.ac.id

Abstract
This study ventures into uncharted territory by delving into the intricate tapestry of character values embodied by elementary school students, as delineated within the pages of the Independent Curriculum Class IV Science Teacher's Book. While the significance of character education in shaping young minds is widely acknowledged, this research pioneers a novel approach by scrutinizing the nuanced portrayal of character values embedded within the curriculum materials tailored for fourth-grade students. Leveraging a qualitative methodology, researchers conducted an exhaustive document study, meticulously collecting and analyzing the requisite literature, including softbooks and hardbooks. The findings unearth a compelling revelation: amidst the prescribed curriculum, certain character values crucial for holistic development are conspicuously absent, potentially undermining the efficacy of the teaching and learning process. Such gaps in character education not only impede academic progress but also exert deleterious effects on students' social and emotional well-being, both within the classroom environment and beyond. By spotlighting these lacunae, this study underscores the imperative for a comprehensive overhaul of character education initiatives, advocating for a more robust integration of essential values into the educational fabric. The research serves as a clarion call for educators and policymakers alike to redouble their efforts in nurturing a generation imbued with exemplary character values, thereby fostering a more compassionate and resilient society.

Keywords: Character Values, Independent Curriculum, Science, Students

INTRODUCTION

Education has a very important role in developing Human Resources. In developing Human Resources it must be focused on increasing the productivity and efficiency of the human itself (Werdhiastutie et al., 2020; Prasetyo & Kistanti, 2020). In addition, education is a process in making students actualize themselves in everyday life (Dewi & Primayana, 2019; Susilawati et al., 2022). One

of the functions of national education in Indonesia is to shape the character of the younger generation as stipulated in the National Education System Law number 20 of 2003 (Hartono et al., 2018; Helda & Syahrani, 2022; Jannah & Fahlevi, 2018). In the world of education, the curriculum has a very important role and the curriculum currently used is the Merdeka Curriculum.

The independent curriculum is a policy issued by the Ministry of Education and Culture for the recovery of learning due to the pandemic that has hit the world, especially Indonesia (Sari, Asyhar & Purwaningsih, 2023; Pratikno et al., 2022). The change in the 2013 Curriculum to become an Merdeka Curriculum is a government effort to reform national education (Kasman & Lubis, 2022; Hersusetiyati & Chandra, 2022). By using the Merdeka Curriculum, you can choose the optimal method so that you can continue the learning process comfortably (Nurhayati et al., 2022; Nugrohadi et al., 2022). The Merdeka Curriculum can answer the needs of the 21st century through character education.

Currently character education is very important to develop. Character education is a very important part for students because they will become wise successors in leading the nation and state (Pradana et al., 2020; Martiningsih et al., 2019). Character education in 21st century skills is very important in achieving future success (Malik, 2018; González-Pérez & Ramírez-Montoya, 2022; Astuti et al., 2019). Also can help students in developing the important traits that exist in him (Singh, 2019; Khaidir & Suud, 2020). So that character education needs to be taught in every subject, one of which is IPAS.

In science subjects, it can be used as a means to develop character education for students if the learning process goes well. IPAS is a subject that combines Natural Sciences and Social Sciences and is a new subject in the independent curriculum. The character values used are the character values contained in Pancasila (Asbari & Purwanto, 2022; Khoirina et al., 2022; Akhuai et al., 2022). Its values are religious, love for the motherland, humanity, fairness, and social spirit (Fajrussalam et al., 2022; Tampilen et al., 2021). Character education programs in schools are aimed at students who are ethical, moral and responsible (Saputro & Murdiono, 2020; Pala, 2011). By doing this program can build student character values in IPAS.

Research on the analysis of character values in science subjects has been carried out by Sukarno, Win & Hong, 2024; Permatasari & Anwas (2019) explained that character education can be taught and assist in the formation of character and ethical values. Because education has an important role in shaping the character of students (Ikhwan et al., 2020; Humaeroh & Dewi, 2021). However, teachers sometimes experience difficulties in integrating character values in learning (Rohmahtika, & Wirayuda, 2023; Maryono et al., 2018). Because of this problem, training will be held for teachers so they can teach character education to students. At present, students are experiencing a character crisis so that student character education is needed under the guidance of the teacher, because students spend more time at school so that teachers can carry out character education for students. The difference between this research and the previous one is that the subjects studied used the teacher's book on the merdeka curriculum. Despite the extensive literature on character education, there remains a gap in understanding how character values are embedded within curriculum materials, particularly at the elementary school level. Existing research often focuses on broad frameworks or specific intervention programs, overlooking the role of curriculum resources in shaping students' character development. This study addresses this gap by examining the representation of character values in the Independent Curriculum Class IV Science Teacher's Book, providing valuable insights into areas where character education may be strengthened or improved.

Based on the explanation above, the researcher is interested in conducting this research with the aim that the researcher can identify character values that are not owned by students where the values have been determined by the teacher. The formulation of the problem in this research is what character values are identified in the science subjects. The variables used in this research are character values. With this research, it is hoped that the character that exists in students can really emerge. Based on the description above, the researcher is interested in raising the title of this study, Analyzing the Character Values of Elementary School Students in the Class IV Science Teacher's Book of Merdeka Curriculum.

RESEARCH METHOD

This study uses a qualitative method. In qualitative research focused on understanding and observing a phenomenon that occurs in research subjects (Johnson et al., 2020). Types of qualitative research, such as phenomenology, ethnography, narrative approach, grounded theory, content analysis,

and others (Mohajan, 2018). In this qualitative method, researchers will use a type of research in the form of a documentation study.

The population is all groups of people who have certain characteristics (Andrade, 2021). The research subjects were character values in class IV IPAS subjects in the Independent Curriculum IPAS Teacher's book. In the teacher's book a review will be carried out and grouped into several aspects that will be analyzed, namely material, questions, and assignments then mapped out in Table 1. Searching for literature and previous research can support this research. After searching for relevant literature and research, reviewing the teacher's book found 18 Character values that need to be instilled in students during the teaching and learning process.

The research instrument used by researchers is documentation or document analysis techniques. In collecting data, rely more on secondary sources such as books, articles, and others (Lochmiller, 2021). Therefore, researchers collect data - data sourced from books - books such as softbooks, hardbooks, and other literature.

In this study, qualitative data analysis will be used to identify character values that will be obtained by students. Researchers will identify the Independent Curriculum IPAS teacher's book, what character values are contained in the aspects being analyzed, namely material, questions and assignments. In this study, there are three activities to be carried out. The first activity is grouping the characters which will be analyzed from several aspects, namely material, questions, and assignments. Next, what will be done is to conduct a literature review by collecting the required sources, such as books or journals. The last step is to identify the character values that are instilled in students during the teaching and learning process. The research procedure in data collection can be diagrammed as follows.

Figure 1. Research procedure

RESULTS AND DISCUSSION

There are 18 Character values that must be possessed by students. According to Tyaningsih et al. (2020), he Ministry of National Education has also identified 18 character values that need to be instilled in students, which are based on Religion, Pancasila, Culture, and National Education Goals. The eighteen values are: religious, honest, tolerant, disciplined, hard working, creative, independent, democratic, curiosity, national spirit, love for the motherland, respect for achievement, friendly/communicative, love peace, love to read, care for the environment, social care, responsibility. Strong character makes a person strong and stable. This is very important for the nation and its life. Because this decision involves high personal integrity. This integrity is important to be formed through character education so that it is high.

Based on the Merdeka Curriculum IPAS teacher's book, 18 student character values will be analyzed from several aspects, such as material, questions and assignments. In the three aspects analyzed, there are several character values that have been achieved by students and there are also character values that have not been achieved by students. The character values that have been analyzed through the Science Class IV Teacher's Book of Merdeka Curriculum so that the character values analyzed can be seen in Table 1.

Table 1. Character Values Found in Science Subjects

Character	Analysis		
	Content (Material)	Question	Assignment (Project)
Honest	✓	✓	
Tolerance	✓		✓
Discipline	✓		✓
Hard work	✓	✓	✓
Creative	✓	✓	✓
Independent	✓	✓	✓
Democratic	✓		
Curiosity	✓	✓	✓
Spirit of nationality	✓		
Love the Motherland			✓
Appreciate Achievements	✓		✓
Friendly/Communicative	✓		✓
Love peace	✓		
Like to read	✓	✓	✓
Environmental care	✓	✓	✓
Responsibility		✓	✓

Based on Table 1 above, it is known that the character values in analyzing the material are honest, tolerance, discipline, hard work, creative, independent, democracy, curiosity, national spirit, respect for achievement, friendly/communicative, peace-loving, fond of reading, care for the environment and responsibility. The characters contained when analyzing the questions are honest, hard working, creative, independent, curious, fond of reading, caring for the environment and responsibility. Furthermore, the characters contained when analyzing the project are tolerance, discipline, hard work, creative, independent, curiosity, love of the motherland, respect for achievement, friendly/communicative, fond of reading, caring for the environment and responsibility. Character values that were not found in conducting material analysis, problem analysis, and project task analysis can be seen in Table 2.

Table 2. Character Values that are not Found in Science Subjects

Character	Analysis		
	Content (Material)	Question	Assignment (Project)
Religious	–	–	–
Social Care	–	–	–

Based on Table 2 it can be seen that the characters in the analysis of the material, questions, and project assignments the character values that were not found were religious and socially caring characters.

After being analyzed in Table 1 shows the character values found in students in material analysis, problem analysis and project task analysis. From the results of the analysis it can be seen that the material only fulfills the character values of honesty, tolerance, discipline, hard work, creative, independent, democracy, curiosity, national spirit, respect for achievement, friendly/communicative, love peace, like to read, care for the environment and responsibility. Then in analyzing the character values that are fulfilled, namely honest, hard work, creative, independent, curiosity, fond of reading, caring for the environment and responsibility. Furthermore, the characters contained when analyzing the project are tolerance, discipline, hard work, creative, independent, curiosity, love of the motherland, respect for achievement, friendly/communicative, fond of reading, caring for the environment and responsibility.

The large number of character values that have not been fulfilled in science subjects causes the learning process to not go well. The impact of implementing internalization in character building is habituation to the activities carried out by students (Mashuri & Fanani, 2021). In the formation of character values in students, the government also has a role that is carried out starting from education (Medina, 2023).

The results shown in Table 2 show that character values are not instilled in students of grade IV IPA in the Mrerdeka Curriculum. These values are religious values and social care, where these values are very important values in developing student character. To fulfill all unidentified character values, the teacher must provide literature that can foster character values.

Religious Character Values

Religion in human life is very important, especially in education. Religious character is a character that contains the human inner life in religion and one's experience in living religion (Maundeni, 2023; Astalini et al, 2023; Thowilah, 2021). With a lack of religious character in students, the learning process will not be optimal so that it will hinder the achievement of educational goals. Many factors cause the absence of character values in students, one of which is the lack of delivery of these character values by the teacher (Rahayu et al, 2020). In the absence of religious character values, the teacher can carry out religious habituation or can use books that have religious material so that it is expected to increase the religious character of students.

The value of religious character is a very important character in education. With religious character, students can face changing times by being able to sort out what is good and what is bad. So that students can control themselves in behaving in something and can also increase student confidence.

Social Care Character Value

Social concern in human life is very important, especially in education and everyday life. Social care is the behavior of a person or group to care about the surrounding environment (Isnaeni & Ningsih, 2021; Utami et al., 2022). Lunturnya nilai karakter peduli sosial pada siswa terhadap lingkungannya akan mempengaruhi proses perkembangan sosial anak (Agustina et al., 2022). Due to the lack of social caring character values, teachers can provide examples of ways or actions in caring for their environment.

The social care character value is a character that will be used in the school and community environment so it is very important for students. Social care plays an important role in educating individuals who are socially sensitive with attitudes and actions that always want to help others in need. Moreover, without the value of social care, solidarity between people will not work well.

The novelty of this study presents a exploration into the character values depicted in elementary school students through the lens of the Independent Curriculum Class IV Science Teacher's Book. While character education is a fundamental aspect of schooling, this research offers a unique perspective by analyzing the portrayal of character values within the curriculum materials designed for class IV students. By focusing on the content of the teacher's book, this study sheds light on the implicit messages conveyed to students about the importance of character development. Implication this research have significant implications for educators, curriculum developers, and policymakers involved in shaping the educational experiences of elementary school students. By identifying character values that may be underrepresented or overlooked in the curriculum materials, stakeholders can make informed decisions about curriculum design and implementation. Moreover, this study underscores the importance of intentional and explicit character education efforts within the classroom, which can positively impact students' behavior and academic performance. Limitation this study offers valuable insights into the portrayal of character values in the Independent Curriculum Class IV Science Teacher's Book, it is not without limitations. The qualitative nature of the research may limit the generalizability of the findings beyond the specific context of the teacher's book analyzed. Additionally, the reliance on document analysis as the primary method of data collection may overlook the perspectives and experiences of students and teachers in the classroom. Future research could benefit from incorporating multiple data sources and exploring the effectiveness of character education interventions within the curriculum.

CONCLUSION

Based on the results obtained, the researcher can conclude that in the IPAS Class IV Subject of the Merdeka, not all character values are fulfilled in elementary school students. Of the 18 Character values that students must have, namely religious, honest, tolerance, discipline, hard work, creative, independent, democratic, curiosity, national spirit, love of the motherland, respect for achievement, friendly/communicative, love peace, love to read, environmental care, social care, responsibility. And for character values that have not been identified, there are two, namely religious and social care.

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AUTHOR CONTRIBUTIONS

Asrial wrote articles and created instruments and was responsible for research, Syahrial analyzed research data that had been collected, Husni Sabil assisted in research data analysis and instrument validation, Sri Wina Oktavia helped input research data and Rahmat Perdana helped input research data.

CONFLICTS OF INTEREST

The author(s) declare no conflict of interest.

REFERENCES

Agustina, N. I. M., Ismaya, E. A., & Pratiwi, I. A. (2022). Dampak penggunaan gadget terhadap karakter peduli sosial anak [The impact of gadget use on children's social care character]. *Jurnal Basicedu*, *6*(2), 2547–2555. https://doi.org/10.31004/basicedu.v6i2.2465

Akhuai, W., Nugraha, A. A., Rahayu, Y. K., Lukitaningtyas, D., Ridho, A., Wulansari, H., & Romadhona, R. A. Al. (2022). Social capital of pancasila education in smart education with social media in cybercrime prevention in the industrial revolution era 4.0. *Jurnal Panjar: Pengabdian Bidang Pembelajaran*, *4*(2), 384–442. https://doi.org/10.15294/panjar.v4i2.55047

Andrade, C. (2021). The inconvenient truth about convenience and purposive samples. *Indian Journal of Psychological Medicine*, *43*(1), 86–88. https://doi.org/10.1177/0253717620977000

Asbari, M., & Purwanto, A. (2022). Pancasila based character education to form good and smart citizens. *Journal of Community Service and Engagement (JOCOSAE)*, *2*(4), 11–18. https://doi.org/10.9999/jocosae.v2i4.62

Astalini, A., Darmaji, D., Kurniawan, D. A., Septiani, N., & Azzahra, M. Z. (2023). Revitalizing science education: Teachers' response to embedding adat bersendi syara' and syara' bersendi kitabullah values into the learning process. *Integrated Science Education Journal*, *4*(3), 117-122. https://doi.org/10.37251/isej.v4i3.735

Astuti, A. P., Aziz, A., Sumarti, S. S., & Bharati, D. A. L. (2019). Preparing 21st century teachers: implementation of 4c character's pre-service teacher through teaching practice. *Journal of Physics: Conference Series*, *1233*(1), 1–8. https://doi.org/10.1088/1742-6596/1233/1/012109

Dewi, P. Y. A., & Primayana, K. H. (2019). Effect of learning module with setting contextual teaching and learning to increase the understanding of concepts. *International Journal of Education and Learning*, *1*(1), 19–26. https://doi.org/10.31763/ijele.v1i1.26

Fajrussalam, H., Winata, K. A., Ruswandi, U., & Nursobah, A. (2022). Implementation of character education in the establishment of students national value during the covid-19 pandemic. *EHDJ: Education and Human Development Journal*, *7*(1), 67–74. https://doi.org/10.33086/ehdj.v7i1.2254

González-Pérez, L. I., & Ramírez-Montoya, M. S. (2022). Components of Education 4.0 in 21st century skills frameworks: systematic review. *Sustainability*, *14*(3), 1493. https://doi.org/10.3390/su14031493

Hartono, Y., Haryanto, S., & Asrowi, A. (2018). Character education in the perspective of humanistic theory: a case study in Indonesia. *EDUCARE: International Journal for Educational Studies*, *10*(2), 95–108. https://doi.org/10.2121/edu-ijes.v10i2.948

Helda, H., & Syahrani, S. (2022). National standards of education in contents standards and education process standards in Indonesia. *Indonesian Journal of Education (INJOE)*, *3*(2), 257–269. https://doi.org/10.54443/injoe.v3i2.32

Hersusetiyati, H., & Chandra, M. P. (2022). The policy of merdeka belajar kampus merdeka (mbkm) in synergy with sustainable development goals (sdgs) to realize quality education on society 5.0. *International Conference on Government Education Management and Tourism (ICoGEMT)*, *1*(1), 1–7.

Humaeroh, S., & Dewi, D. A. (2021). Peran pendidikan kewarganegaraan di era globalisasi dalam pembentukan karakter siswa [The role of citizenship education in the era of globalization in

forming student character]. *Journal on Education*, *3*(3), 216–222. https://doi.org/10.31004/joe.v3i3.381

Ikhwan, A., Farid, M., Rohmad, A., & Syam, A. R. (2020). Revitalization of islamic education teachers in the development of student personality. *1st Borobudur International Symposium on Humanities, Economics and Social Sciences (BIS-HESS 2019)*, *436*, 162–165. https://doi.org/10.2991/assehr.k.200529.034

Isnaeni, Y., & Ningsih, T. (2021). Pembentukan karakter peduli sosial melaui pembelajaran IPS [Formation of social care character through social studies learning]. *JISIP (Jurnal Ilmu Sosial dan Pendidikan)*, *5*(3), 662–672. https://doi.org/10.36312/jisip.v5i3.2255

Jannah, F., & Fahlevi, R. (2018). Strengthening the Pancasila character values in forming the character of Pancasilais generation. *1st International Conference on Creativity, Innovation and Technology in Education (IC-CITE 2018)*, 77–80. https://doi.org/10.2991/iccite-18.2018.18

Johnson, J. L., Adkins, D., & Chauvin, S. (2020). A review of the quality indicators of rigor in qualitative research. *American Journal of Pharmaceutical Education*, *84*(1), 138–146. https://doi.org/10.5688/ajpe7120

Kasman, K., & Lubis, S. K. (2022). Teachers' performance evaluation instrument designs in the implementation of the new learning paradigm of the merdeka curriculum. *Jurnal Kependidikan: Jurnal Hasil Penelitian dan Kajian Kepustakaan di Bidang Pendidikan, Pengajaran dan Pembelajaran*, *8*(3), 760–775. https://doi.org/10.33394/jk.v8i3.5674

Khaidir, E., & Suud, F. M. (2020). Islamic education in developing students' characters at as-shofa islamic high school, Pekanbaru Riau. *IJIEP: International Journal of Islamic Educational Psychology*, *1*(1), 50–63. https://doi.org/10.18196/ijiep.1105

Khoirina, N. J., Al-Majiid, F. H., & Great, K. A. (2022). Pancasila character education for millennials in higher education: the future challenges for indonesia in global prespective. *Jurnal Panjar: Pengabdian Bidang Pembelajaran*, *4*(1), 55–80. https://doi.org/10.15294/panjar.v4i1.55019

Lochmiller, C. R. (2021). Conducting thematic analysis with qualitative data. *The Qualitative Report*, *26*(6), 2029–2044. https://doi.org/10.46743/2160-3715/2021.5008

Malik, R. S. (2018). Educational challenges in 21st century and sustainable development. *Journal of Sustainable Development Education and Research*, *2*(1), 9–20. https://doi.org/10.17509/jsder.v2i1.12266

Martiningsih, I., Lisdiana, L., & Susilowati, S. M. E. (2019). Development of module based on scientific contextual additives material to increase learning outcomes and science process skills in junior high school. *Journal of Innovative Science Education*, *8*(2), 128–137.

Maryono, M., Budiono, H., & Okha, R. (2018). Implementasi Pendidikan Karakter Mandiri Di Sekolah Dasar. *Jurnal Gentala Pendidikan Dasar*, *3*(1), 20–38. https://doi.org/10.22437/gentala.v3i1.6750

Mashuri, I., & Fanani, A. A. (2021). Internalisasi nilai-nilai akhlak islam dalam membentuk karakter siswa sma al-kautsar sumbersari srono Banyuwangi [Internalization of Islamic moral values in shaping the character of al-kautsar high school students in Sumbersari Srono Banyuwangi]. *Ar-Risalah: Media Keislaman, Pendidikan dan Hukum Islam*, *19*(1), 157–169. https://doi.org/10.29062/arrisalah.v19i1.575

Maundeni, W. B. (2023). Literature study: The value of the character of love for the motherland in science learning. *Journal Evaluation in Education (JEE)*, *4*(3), 110-119. https://doi.org/10.37251/jee.v4i3.334

Medina, J. B. (2023). Description of environmental care analysis of students in elementary schools. *Journal Evaluation in Education (JEE)*, *4*(3), 95-103. https://doi.org/10.37251/jee.v4i3.335

Mohajan, H. K. (2018). Qualitative research methodology in social sciences and related subjects. Journal of economic development, environment and people. *Journal of Economic Development, Environment and People*, *7*(1), 23–48. https://doi.org/10.26458/jedep.v7i1.571

Nugrohadi, S., Herwanti, K., Mujiono, M., Ardini, S. N., & Novita, M. (2022). Analysis of a new learning paradigm based on kurikulum merdeka. *Internasional Conference on Digital Education and Social Science (ICDESS)*, *1*(1), 134–143.

Nurhayati, N., Jamaris, J., & Marsidin, S. (2022). Strengthening pancasila student profiles in independent learning curriculum in elementary school. *International Journal Of Humanities*

Education and Social Sciences (IJHESS), *1*(6), 976–988. https://doi.org/10.55227/ijhess.v1i6.183

Pala, A. (2011). The need for character education. *International Journal of Social Sciences and Humanity Studies*, *3*(2), 23–32.

Permatasari, A. D., & Anwas, E. O. M. (2019). Analisis pendidikan karakter dalam buku teks pelajaran ilmu pengetahuan alam kelas vii [Analysis of character education in natural science textbooks for class VII.]. *Jurnal Teknologi Pendidikan*, *07*(02), 156–169. https://doi.org/10.31800/jtp.kw.v7n2.p156--169

Pradana, D. A., Mahfud, M., Hermawan, C., & Susanti, H. D. (2020). Nasionalism: Character Education Orientation in Learning Development. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, *3*(4), 4026–4034. https://doi.org/10.33258/birci.v3i4.1501

Prasetyo, P. E., & Kistanti, N. R. (2020). Human Capital, Institutional Economics and Entrepreneurship as a Driver for Quality & Sustainable Economic Growth. *Entrepreneurship and Sustainability Issues*, *7*(4), 2575–2589. https://doi.org/10.9770/jesi.2020.7.4(1)

Pratikno, Y., Hermawan, E., & Arifin, A. L. (2022). Human resource 'Kurikulum Merdeka'from design to implementation in the school: What worked and what not in Indonesian education. *Jurnal Iqra': Kajian Ilmu Pendidikan*, *7*(1), 326-343. https://doi.org/10.25217/ji.v7i1.1708

Rahayu, D., Narimo, S., Fathoni, A., Rahmawati, L. E., & Widiyasari, C. (2020). Pembentukan karakter siswa berorientasi higher order thinking skils (hots) di sekolah dasar [Formation of students' character oriented towards higher order thinking skills (hots) in elementary school]. *ELSE (Elementary School Education Journal): Jurnal Pendidikan dan Pembelajaran Sekolah Dasar*, *4*(1), 109-118. https://doi.org/10.30651/else.v4i1.4071

Rohmahtika, A., & Wirayuda, R. P. (2023). Identification of Honesty Behavior in Science Class XII Students of Senior High School. *Integrated Science Education Journal*, *4*(1), 09-13. https://doi.org/10.37251/isej.v4i1.310

Saputro, J. D., & Murdiono, M. (2020). Implementation of character education through a holistic approach to senior high school students. *International Journal of Multicultural and Multireligious Understanding*, *7*(11), 460–470. https://doi.org/10.18415/ijmmu.v7i11.2146

Sari, J., Asyhar, R., & Purwaningsih, S. (2023). Integrated science learning devices on substances and their characteristics material with character enrichment through the application of problem-based learning. *Integrated Science Education Journal*, *4*(3), 90-95. https://doi.org/10.37251/isej.v4i3.691

Singh, B. (2019). Character education in the 21st century. *Journal of Social Studies (JSS)*, *15*(1), 1–12. https://doi.org/10.21831/jss.v15i1.25226

Sukarno, S., Win, K. T., & Hong, D. A. C. (2024). Teachers' views regarding the character of students' perseverance in science learning. *Integrated Science Education Journal*, *5*(1), 59-64. https://doi.org/10.37251/isej.v5i1.806

Susilawati, S., Aprilianti, D., & Asbari, M. (2022). The role of islamic religious education in forming the religious character of students. *Journal of Information Systems and Management (JISMA)*, *1*(2), 1–5. https://doi.org/10.4444/jisma.v1i1.1

Thowilah, T. (2021). Menumbuhkembangkan karakter religius pada anak usia dini di tk kusuma kelurahan patokan kecamatan kraksaan Probolinggo Jawa Timur [Developing religious character in early childhood at the Kusuma kindergarten, Patokan sub-district, Kraksaan sub-district, Probolinggo, East Java]. *At-Turost: Journal of Islamic Studies*, *8*(2), 167-178. https://doi.org/10.52491/at.v8i2.64

Tyaningsih, R. Y., Baidowi, B., & Maulyda, M. A. (2020). Integration of character education in basic mathematics learning in the digital age. *1st Annual Conference on Education and Social Sciences (ACCESS 2019)*, 156–160.

Utami, P., Saputri, J., Ferdinan, R. A., & Kusnadi, N. A. (2022). The Relationship of Religious Characters to Student Learning Outcomes in Islamic Religious Subjects. *Journal Evaluation in Education (JEE)*, *3*(4), 114-118. https://doi.org/10.37251/jee.v3i4.289

Werdhiastutie, A., Suhariadi, F., & Partiwi, S. G. (2020). Achievement Motivation as Antecedents of Quality Improvement of Organizational Human Resources. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, *3*(2), 747–752. https://doi.org/10.33258/birci.v3i2.886