



Articles

Analysis of the Success Factors for Implementing the Independent Curriculum in the Revolutionary Era 4.0

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ABSTRACT

The aim of the research is to analyze and identify success factors in implementing independent curriculum in the era of revolution 4.0. The research method uses *library research* with the research object being the success factor in implementing an independent curriculum. The data is collected by documentation, namely looking for data regarding things in the form of articles and journals. Data analysis techniques use the Miles and Huberman model, namely data reduction, data display, and drawing conclusions. The results of this research show that there are eight factors for the success of implementing an independent curriculum in the era of revolution 4.0, namely the existence of structural coordination and communication, local or regional education offices preparing various principles such as the basic framework of the curriculum, madrasah curriculum, developing a curriculum framework, implementing an independent curriculum framework development strategy, providing training to teachers and madrasah heads regarding curriculum implementation, providing continuous instructor support, collecting data online, managing learning resources wisely. It can be concluded that the implementation of an independent curriculum is strongly indicated by technology which makes all parties such as madrasah heads, supervisors, teachers, education staff, the surrounding community and students

attend and accompany technological developments.

1. Introduction

Freedom to learn is the motto currently being promoted by the Ministry of Education and Culture (Yunita et al., 2023). It is hoped that the principle of independent learning can expedite the process of improving education in Indonesia, which has so far seemed stagnant. The Minister of Education and Culture even started the concept of education deregulation because so far education regulations have been considered to hinder the achievement of educational reform which will be seen in the quantity and quality of education in Indonesia (Dewi & Khotimah, 2020). In the COVID-19 pandemic situation, this has resulted in a change from educational activities at school to independent learning for students which can only be done at home (Handarini & Wulandari, 2020).

The curriculum is an initiative program arrangement from the Minister of Education and Culture, Mr. Nadiem Makarim, which was planned since 2021 (Mursyid et al., 2023). Independent curriculum or what is known as the independent learning curriculum. The independent curriculum in its structure refers to the 2013 curriculum but in carrying out learning and assessments it applies the principles of the independent curriculum (Retnaningsih & Khairiyah, 2022). The Independent Learning Curriculum has not been widely implemented in Indonesia, because schools' understanding of the implementation of this curriculum is still lack (Martatiana et al., 2023). The key to implementing this curriculum is independent teachers and students. Even though the Indonesian government, especially the Ministry of Education and Culture (Kemendikbud), has instructed all schools in Indonesia to implement the independent learning curriculum as the new curriculum. The term independence here refers to the level of independence that teachers and students have to give each other freedom in exploiting knowledge at school (Maharani & Syarif, 2022). The implementation of the free learning curriculum is still being carried out in stages, which means it has only been implemented in several classes and levels of education in accordance with the guidelines for implementing the free learning curriculum from the Ministry of Education and Culture (Atikoh, 2023; Zakiyah & Achadi, 2022). Apart from that, the systematic and structure in the independent learning curriculum are actually very simple to implement. However, the school does not really understand the systematic and structure of the free learning curriculum and this is certainly an inhibiting factor in implementing the free learning curriculum at the school.

Current conditions are experiencing rapid acceleration of industrial development because with the situation of students studying at home, there is a

change in education through the addition of technology (Siregar et al., 2020). The development of Industry 4.0 has led to the rapid development of science in all fields, including education (Firmansyah, 2022; Santika, 2021). The success of a country in facing the industrial revolution 4.0 is also determined by the quality of educators such as teachers (Kahar et al., 2021; Lase, 2019; Siregar et al., 2020). Teachers are required to master skills, the ability to adapt to new technology and global challenges. In this situation, every educational institution must prepare new orientation and literacy in the field of education. Old literacy which relies on reading, writing and mathematics must be strengthened by preparing new literacy, namely data literacy, technology and human resources (Lembong et al., 2023; Nurhasnawati et al., 2023). Data literacy is the ability to read, analyze and use information from data in the digital world. Then, technological literacy is the ability to understand mechanical and technological systems in the world of work. Meanwhile, human resource literacy is the ability to interact well, not be rigid, and have character (Dito & Pujiastuti, 2021; Nabila & Achadi, 2023).

To face the era of industrial revolution 4.0, education is needed that can form a creative, innovative and competitive generation (Harahap, 2019; Sholeh et al., 2021). This can be achieved one way by optimizing the use of technology as an educational tool which is expected to be able to produce *output* that can keep up with or change the times for the better. Without exception, Indonesia also needs to improve the quality of graduates according to the world of work and the demands of digital technology (Ismail & Nugroho, 2022; Mahmudah & Putra, 2021). Digitalization of education is an optimal learning potential that can be realized through the curriculum (Ita et al., 2023).

Curriculum changes in Indonesia are one of the biggest changes in the world of education. Currently, the independent learning curriculum has become an option in the world of education, because the Ministry of Education and Culture must carry out outreach first so that this independent curriculum becomes the national curriculum. Management changes based on the independent curriculum are carried out appropriately so that students have 21st century knowledge and skills (Heryahya et al., 2022; Martatiana et al., 2023). The success of the independent curriculum in educational units is influenced by several factors and the cooperation of various parties.

There are various factors in achieving successful implementation of an independent curriculum in the era of industrial revolution 4.0. These factors come from inside and outside, one of which is human resources which is the main part. Then proceed to other sections such as facilities and infrastructure, curriculum and learning. There are several studies related to the discussion in this research, such as Sofyan Alnashr's research which shows that the inhibiting factors for MI teachers in thematic learning are internal teacher factors and external factors (Alnashr,

2018). The teacher's internal factor lies in the low level of professional competence related to thematic learning. Meanwhile, external factors include the condition of students who cannot perform calistung (for class 1) and students who are used to subject-based learning (for class 4) so teachers have to work extra hard in learning. Furthermore, Utari's research shows that the factors that cause learning difficulties implemented by the 2013 curriculum are physiological factors, social factors, emotional factors, intellectual factors, and pedagogical factors (Utari et al., 2019). Then Sartini and Rahmat's research stated that the implementation of the independent curriculum was not carried out simultaneously in all educational units in Indonesia. This is because there are still many challenges that must be faced by education actors, especially teachers and students. The solution that can be done is to provide support, either training or funding, for the implementation of the independent curriculum in educational units in Indonesia (Ardianti & Amalia, 2022).

The difference between previous research and this research is that the previous curriculum discussed more about the factors inhibiting the implementation of the independent curriculum, whereas this research only focuses on the supporting factors. Based on the background that has been explained, researchers conducted research to analyze in depth the factors of success in implementing an independent curriculum in the era of revolution 4.0.

2. Method

The method used is library research or *Library Research*, namely a series of research related to methods or research for collecting library data, where the research object is studied through various library information (books, encyclopedias, documents and scientific journals) (Kristyowati & Purwanto, 2019; Sari & Asmendri, 2020). In this research the author focuses on the success factors for implementing an independent curriculum. Researchers used a literature review method where this research was conducted based on written work only, including both published and unpublished research results (Nurgiansah et al., 2021). Data is collected by documentation, namely looking for data regarding things in the form of articles and journals. The library research procedure adopted from Zed is *first*, prepare equipment such as stationery, paper and laptop; *second*, compiling a bibliography or notes related to the main sources used in research, namely articles and journals searched via *Google Scholar* and *publish or publish*; *third*, set time for planning and analyzing research focus; *fourth*, read and make research notes so that it is systematic and does not confuse the number of articles and journals that discuss the independent curriculum. Data analysis techniques use the Miles and Huberman model, namely data reduction, data display, and drawing conclusions.

3. Results and Discussion

There are success factors so that the implementation of an independent curriculum or independent curriculum is achieved, namely *first*, there is structural coordination and communication, in the sense of cooperation and involvement of structural officials responsible for the field of education at the central, provincial, district/city levels starting from the supervisor. Madrasah, head of the madrasah, teachers, education staff at the madrasah, the community in the surrounding area, and students. The government, schools, teachers and communities need to work together more effectively to encourage widespread and sustainable implementation of the Independent Curriculum (Megayanti & Asri, 2022). The implementation of an independent curriculum gives schools the freedom to choose their own materials, methods and learning evaluations, based on the needs of their students. It is hoped that this will lead to more creative and innovative learning, which is better suited to the needs of the modern world. In turn, this should make graduates more competitive in today's global marketplace (Barlian & Solekah, 2022).

Second, the local or regional education office prepares various principles such as the basic framework of the madrasah curriculum (madrasah curriculum structure, learning outcomes, learning guidelines and assessment in madrasah). *Third*, develop a curriculum framework (madrasah goals and objectives according to learning objectives and modules, school version of diagnostic tests, and basic education madrasah version of the Pancasila profile strengthening project program). *Fourth*, carry out an independent curriculum framework development strategy such as compiling and identifying existing basic competencies according to the characteristics of students in madrasah, the curriculum structure is changed from weekly to annual then to 30% learning hours for program activities on the Pancasila student profile project, applications in Dipodic are adjusted to implementation of an independent curriculum so that the supporting qualifications of the teacher profession are maintained. *Fifth*, provide training to teachers and madrasah heads regarding the implementation of the curriculum in the classroom. Teachers and madrasah heads receive structured training in the form of internal training (IHT). Training is carried out once within a predetermined period of time, for example once a month or once every six months. If you have received training, it will be implemented by following up on the theory and practice obtained during the training.

Things that need to be considered in the training model are (1) the head of the madrasah is trained first or together with the teacher so that he is ready to direct the implementation of the curriculum independently and become a resource for teachers. (2) All teachers in one school always receive independent curriculum training to help each other and discuss existing obstacles. (3) The *Flipped learning approach* is used in training, where theory is prepared *online*. Its implementation in schools is discussed and planned in face-to-face activities. (4) *In-service* training is carried out in a programmed manner, at least every semester, to monitor the

progress of school implementation and avoid conflicts between school theory and practice.

Considering the importance of the workforce in making digital transformation a success, it is necessary to understand the vision of digital technology in order to achieve changes in aspects of human resource management (HR). Traditional HRM (Human Resources Management) is the process of managing people in an organization, and includes all the techniques used to manage people and keep them current, qualified, and aligned according to stakeholder expectations; there is also a focus on activities related to professional qualifications, learning, and individual training (Cezarino et al., 2021; Da Silva et al., 2022; Hecklau et al., 2016). It also includes outlining organizational structures, improving communications, and developing ethical and social principles.

Sixth factor is the existence of continuous instructor support, such as preparing experienced trainers to accompany madrasas in the madrasah mobilization program. There is a division of different roles as part of the process of running an independent curriculum in madrasas, for example planners play the role of creating training and mentoring programs for the madrasas under their supervision; trainers play a role in increasing the capacity of teachers and madrasah heads in understanding the independent curriculum; companions play a role in helping madrasas implement an independent curriculum; executives serve as part of the learning committee to develop independent tools for implementing the curriculum.

Seventh, collect data online. In the era of revolution 4.0, which is called the development of the 21st century, everything, including education, is related and must follow knowledge and technology to implement an independent curriculum. Independent curriculum materials and information on developments in curriculum implementation in madrasas are included in learning materials using the *Massive Open Online Course* (MOOC) model so that the entire madrasah community prepares a storage place for independent curriculum tools needed by schools that cannot develop on their own. In Indonesia, *Massive Open Online Course* (MOOC) is known as Open and Integrated Online Learning (PDTT/PDITT) (Isnaini, 2019). Prepare an application for monitoring the implementation of the independent curriculum in schools as a resource if problems occur. *Web-* based data collection that can be used in *real time* can be one of the successful factors in implementing an independent curriculum in madrasas.

The curriculum must adapt to the increasingly competitive business and industrial climate. Education 4.0 refers to the design and vision of future learning. It aims to leverage digital technology, personalized data, open source content and connectivity at the highest level (Benešová & Tupa, 2017; Mukul & Büyüközkan, 2023). This ensures that society and individuals have better living conditions and opportunities based on an understanding of sustainability.

Students are prepared with a curriculum that contains *artificial intelligence*, *internet of things* (IoT), *wearable* (*augmented reality and virtual reality*), *advanced*

robotics, and 3D printing. In short, the curriculum must *link and match* between schools and the world of business and industry. The Ministry of Education and Culture, as quoted by Fadli and Muliastri, stated five competencies that teachers must prepare to enter the Industrial Revolution 4.0 era, namely, first, *educational competence*. Second, *the competence for technological commercialization*. Third, *the competence in globalization*, Fourth, *competence in future strategies*, and fifth, *counselor competence* (Fadli, 2021; Muliastri, 2019).

Meanwhile, (Rahim et al., 2019) he stated that there are at least 4 competencies that teachers must have in the era of the industrial revolution 4.0, namely 1) teachers must be able to carry out comprehensive assessments; 2) Teachers must have 21st century competencies: character, morals and literacy; 3) Teachers must be able to present modules according to students' passions; and 4) Teachers must be able to carry out innovative *authentic learning*.

Eighth, manage learning resources wisely. There is a lot of diversity in madrasah, therefore different interventions are needed. Regarding the implementation of an independent curriculum, madrasahs can be divided into four categories, namely primary, secondary, advanced and independent. To prevent and foster elementary, middle and high school types, local agencies must prepare examples of the results of developing a basic curriculum framework in the form of a School Action Plan (COM); Learning Objectives and Learning Objective Flow (ATP); Learning Module (MA); Project for Strengthening Pancasila Student Profiles (P5).

4. Conclusions and Suggestions

There are eight factors for the success of implementing an independent curriculum in the era of revolution 4.0, namely the existence of structural coordination and communication, local or regional education offices preparing various principles such as the basic framework of the madrasah curriculum, developing a curriculum framework, carrying out strategies for developing an independent curriculum framework, providing training to teachers and heads. madrasahs related to implementing the curriculum have continuous instructor support, collecting data online, managing learning resources wisely. The independent curriculum is an effort to restore the learning process, developed based on current community needs and developed as a more flexible curriculum framework, while remaining focused on essential material and developing the curriculum, character and student competencies. The curriculum used is expected can align with century skills²¹. The implementation of the independent curriculum is strongly influenced by technology which makes all parties such as madrasah heads, supervisors, teachers, education staff, the surrounding community and students present and accompanied by technological developments. Based on the demands of an independent curriculum that only focuses on theory, there is no clear acceleration in developing an approach to the use of technology. Suggestions

for further researchers are to identify related factors and obstacles as well as solutions in implementing independent curriculum in the current era, namely society 5.0.

5. Author Contributions

Nurulita Wijayanti prepared the research concept and design, collected data, presented tables, prepared discussions, conclusions and abstracts.

6. Bibliography

- Alnashr, M. S. (2018). Analisis Faktor Penghambat Guru Madrasah Ibtidaiyah dalam Pembelajaran Tematik (Studi Kasus di MI Al-Hikmah Kajen, Margoyoso, Pati). *Al Ibtida: Jurnal Pendidikan Guru MI*, 5(2), 191–204. <http://dx.doi.org/10.24235/al.ibtida.snj.v5i2.2959>
- Ardianti, Y., & Amalia, N. (2022). Kurikulum merdeka: Pemaknaan merdeka dalam perencanaan pembelajaran di sekolah dasar. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 6(3), 399–407. <https://doi.org/10.23887/jpppp.v6i3.55749>
- Atikoh, N. (2023). Dinamika Iplementasi Kurikulum Merdeka di Madrasah Ibtidaiyah: Analisis Holistik terhadap Proses, Problematik, dan Solusinya. *Waniambey: Journal of Islamic Education*, 4(2), 136–152. <https://doi.org/10.53837/waniambey.v4i2.747>
- Barlian, U. C., & Solekah, S. (2022). Implementasi kurikulum merdeka dalam meningkatkan mutu pendidikan. *JOEL: Journal of Educational and Language Research*, 1(12), 2105–2118. <https://doi.org/10.53625/joel.v1i12.3015>
- Benešová, A., & Tupa, J. (2017). Requirements for education and qualification of people in Industry 4.0. *Procedia Manufacturing*, 11, 2195–2202. <https://doi.org/10.1016/j.promfg.2017.07.366>
- Cesarino, L. O., Liboni, L. B., Oliveira Stefanelli, N., Oliveira, B. G., & Stocco, L. C. (2021). Diving into emerging economies bottleneck: Industry 4.0 and implications for circular economy. *Management Decision*, 59(8), 1841–1862. <https://doi.org/10.1108/MD-10-2018-1084>
- Da Silva, L. B. P., Soltovski, R., Pontes, J., Treinta, F. T., Leitão, P., Mosconi, E., De Resende, L. M. M., & Yoshino, R. T. (2022). Human resources management 4.0: Literature review and trends. *Computers & Industrial Engineering*, 168, 108111. <https://doi.org/10.1016/j.cie.2022.108111>
- Dewi, R., & Khotimah, S. H. (2020). Pengaruh Profesionalisme Dan Disiplin Kerja Guru Terhadap Peningkatan Mutu Pendidikan Di Sekolah Dasar. *Elementary: Islamic Teacher Journal*, 8(2), 279. <http://dx.doi.org/10.21043/elementary.v8i2.7839>

- Dito, S. B., & Pujiastuti, H. (2021). Dampak revolusi industri 4.0 pada sektor pendidikan: kajian literatur mengenai digital learning pada pendidikan dasar dan menengah. *Jurnal Sains Dan Edukasi Sains*, 4(2), 59–65. <https://doi.org/10.24246/juses.v4i2p59-65>
- Fadli, M. R. (2021). Hubungan filsafat dengan ilmu pengetahuan dan relevansinya di era revolusi industri 4.0 (Society 5.0). *Jurnal Filsafat*, 31(1), 130–161. <https://doi.org/10.22146/jf.42521>
- Firmansyah, R. (2022). The Problem of Religious Thought in Indonesia and The Paradigm of Tafsir Ilmi as One of A Solution in The Future. *Al-Misbah (Jurnal Islamic Studies)*, 10(1), 44–57. <https://doi.org/10.26555/almisbah.v10i1.5841>
- Handarini, O. I., & Wulandari, S. S. (2020). Pembelajaran daring sebagai upaya study from home (SFH) selama pandemi covid 19. *Jurnal Pendidikan Administrasi Perkantoran (JPAP)*, 8(3), 496–503. <https://doi.org/10.26740/jpap.v8n3.p496-503>
- Harahap, N. J. (2019). Mahasiswa dan revolusi industri 4.0. *ECOBISMA (Jurnal Ekonomi, Bisnis Dan Manajemen)*, 6(1), 70–78. <https://doi.org/10.36987/ecobi.v6i1.38>
- Hecklau, F., Galeitzke, M., Flachs, S., & Kohl, H. (2016). Holistic approach for human resource management in Industry 4.0. *Procedia Cirp*, 54, 1–6. <https://doi.org/10.1016/j.procir.2016.05.102>
- Heryahya, A., Herawati, E. S. B., Susandi, A. D., & Zulaiha, F. (2022). Analisis kesiapan guru sekolah dasar dalam implementasi Kurikulum Merdeka. *Journal of Education and Instruction (JOEAI)*, 5(2), 548–562. <https://doi.org/10.31539/joeai.v5i2.4826>
- Ismail, D. H., & Nugroho, J. (2022). Kompetensi Kerja Gen Z di Era Revolusi Industri 4.0 dan Society 5.0. *JIIP-Jurnal Ilmiah Ilmu Pendidikan*, 5(4), 1300–1307. <https://doi.org/10.54371/jiip.v5i4.566>
- Isnaini, R. L. (2019). Kajian reflektif: Relevansi pendidikan humanis-religius dalam menghadapi era revolusi industri 4.0. *Jurnal Pembangunan Pendidikan: Fondasi Dan Aplikasi*, 7(1), 26–34. <http://dx.doi.org/10.21831/jppfa.v7i1.26945>
- Ita, C. S., Tampubolon, M. P., & Sitohang, H. (2023). Program Supervisi Akademik dan Program Belajar Era Revolusi Industri 4.0 terhadap Kompetensi Profesional Guru. *Jurnal Dinamika Pendidikan*, 16(1), 22–32. <https://doi.org/10.51212/jdp.v16i1.185>
- Kahar, M. I., Cika, H., Afni, N., & Wahyuningsih, N. E. (2021). Pendidikan Era Revolusi Industri 4.0 Menuju Era Society 5.0 Di Masa Pandemi Covid 19. *Moderasi: Jurnal Studi Ilmu Pengetahuan Sosial*, 2(1), 58–78. <https://doi.org/10.24239/moderasi.Vol2.Iss1.40>
- Kristyowati, R., & Purwanto, A. (2019). Pembelajaran literasi sains melalui pemanfaatan lingkungan. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, 9(2), 183–191. <https://doi.org/10.24246/j.js.2019.v9.i2.p183-191>

- Lase, D. (2019). Pendidikan di era revolusi industri 4.0. *SUNDERMANN: Jurnal Ilmiah Teologi, Pendidikan, Sains, Humaniora Dan Kebudayaan*, 12(2), 28–43. <https://doi.org/10.36588/sundermann.v1i1.18>
- Lembong, J. M., Lumapow, H. R., & Rotty, V. N. J. (2023). Implementasi merdeka belajar sebagai transformasi kebijakan pendidikan. *Jurnal Educatio FKIP UNMA*, 9(2), 765–777. <https://doi.org/10.31949/educatio.v9i2.4620>
- Maharani, A., & Syarif, C. (2022). Manajemen Pendidikan Karakter Dalam Pembinaan Akhlak Peserta Didik. *Edumaspul: Jurnal Pendidikan*, 6(1), 763–769.
- Mahmudah, F. N., & Putra, E. C. S. (2021). Tinjauan pustaka sistematis manajemen pendidikan: Kerangka konseptual dalam meningkatkan kualitas pendidikan era 4.0. *Jurnal Akuntabilitas Manajemen Pendidikan*, 9(1), 43–53. <http://dx.doi.org/10.21831/jamp.v9i1.33713>
- Martatiyana, D. R., Derlis, A., Aviarizki, H. W., Jurdil, R. R., Andayani, T., & Hidayat, O. S. (2023). Analisis Komparasi Implementasi Kurikulum Merdeka Dan Kurikulum 2013. *Muallimuna: Jurnal Madrasah Ibtidaiyah*, 9(1), 96–109. <http://dx.doi.org/10.31602/muallimuna.v9i1.11600>
- Megayanti, W., & Asri, K. H. (2022). Transformasi Gaya Kepemimpinan Kepala Sekolah dalam Penerapan Merdeka Belajar. *Research and Development Journal of Education*, 8(2), 771–776. <http://dx.doi.org/10.30998/rdje.v8i2.14072>
- Mukul, E., & Büyüközkan, G. (2023). Digital transformation in education: A systematic review of education 4.0. *Technological Forecasting and Social Change*, 194, 122664. <https://doi.org/10.1016/j.techfore.2023.122664>
- Muliasitri, N. K. E. (2019). Penguatan Literasi Baru (Literasi Data, Teknologi, Dan SDM/Humanisme) Pada Guru-Guru Sekolah Dasar Dalam Menjawab Tantangan Era Revolusi Industri 4.0. *Ganaya: Jurnal Ilmu Sosial Dan Humaniora*, 2(2–1), 88–102.
- Mursyid, A., Ahmad, C. F., Dewi, A. K., & Tianti, A. Y. (2023). Penerapan kurikulum merdeka dalam rencana pelaksanaan pembelajaran di Purwakarta. *Al-Fahim: Jurnal Manajemen Pendidikan Islam*, 5(1), 173–187. <https://doi.org/10.54396/alfahim.v5i1.566>
- Nabila, N. A., & Achadi, M. W. (2023). Implementasi Kurikulum Merdeka dalam Pembelajaran Fiqh di Madrasah Tsanawiyah. *At-Tajdid: Jurnal Pendidikan Dan Pemikiran Islam*, 7(2), 304–315. <http://dx.doi.org/10.24127/att.v7i2.2974>
- Nurgiansah, T. H., Pratama, F. F., & Nurchotimah, A. S. I. (2021). Penelitian tindakan kelas dalam pendidikan kewarganegaraan. *Jurnal Pendidikan PKN (Pancasila Dan Kewarganegaraan)*, 2(1), 10–23. <https://dx.doi.org/10.26418/jppkn.v2i1.41752>
- Nurhasnawati, N., Zarkasih, Z., Putriani, Z., Berlian, M., & Vebrianto, R. (2023). Development of a Qr Code-Based Student Worksheet in the Course of Media and Learning Resources Development to Improve Digital Literacy.

- Elementary: Islamic Teacher Journal*, 11(1), 79–106.
<http://dx.doi.org/10.21043/elementary.v11i1.17115>
- Rahim, F. R., Suherman, D. S., & Murtiani, M. (2019). Analisis kompetensi guru dalam mempersiapkan media pembelajaran berbasis teknologi informasi era revolusi industri 4.0. *Jurnal Eksakta Pendidikan (Jep)*, 3(2), 133.
- Retnaningsih, L. E., & Khairiyah, U. (2022). Kurikulum merdeka pada pendidikan anak usia dini. *SELING: Jurnal Program Studi PGRA*, 8(2), 143–158.
<https://doi.org/10.29062/seling.v8i2.1223>
- Santika, I. G. N. (2021). Grand desain kebijakan strategis pemerintah dalam bidang pendidikan untuk menghadapi revolusi industri 4.0. *Jurnal Education and Development*, 9(2), 369–377. <https://doi.org/10.37081/ed.v9i2.2500>
- Sari, M., & Asmendri, A. (2020). Penelitian kepustakaan (library research) dalam penelitian pendidikan IPA. *Natural Science*, 6(1), 41–53.
<https://doi.org/10.15548/nsc.v6i1.1555>
- Sholeh, M., Murtono, M., & Masfuah, S. (2021). Efektivitas pembelajaran google classroom dalam meningkatkan kemampuan literasi membaca siswa. *Jurnal Educatio Fkip Unma*, 7(1), 134–140.
<https://doi.org/10.31949/educatio.v7i1.889>
- Siregar, N., Sahirah, R., & Harahap, A. A. (2020). Konsep kampus merdeka belajar di era revolusi industri 4.0. *Fitrah: Journal of Islamic Education*, 1(1), 141–157. <https://doi.org/10.53802/fitrah.v1i1.13>
- Utari, D. R., Wardana, M. Y. S., & Damayani, A. T. (2019). Analisis kesulitan belajar matematika dalam menyelesaikan soal cerita. *Jurnal Ilmiah Sekolah Dasar*, 3(4), 534–540. <https://doi.org/10.23887/jisd.v3i4.22311>
- Yunita, Y., Zainuri, A., Ibrahim, I., Zulfi, A., & Mulyadi, M. (2023). Implementasi kurikulum merdeka belajar. *Jambura Journal of Educational Management*, 16–25. <https://doi.org/10.37411/jjem.v4i1.2122>
- Zakiah, N., & Achadi, M. W. (2022). Analisis Implementasi Kurikulum Merdeka di Madrasah Piloting MIN 2 Bantul Yogyakarta. *Raudhah Proud To Be Professionals: Jurnal Tarbiyah Islamiyah*, 7(2), 229–238.
<https://doi.org/10.48094/raudhah.v7i2.221>