The Refinement on Character education to Strengthening Islamic Education in Industrial Era 4.0

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Abstract
The research is to know the strengthening of Islamic educations in accordance with the need for the Industrial era 4.0 industrial era (turbulence era). Within those advancements, character education has become an oasis in the middle of morality decadences of millennial generation in the present society and a fort to prevent the destruction of a nation. The research method uses literature study by collecting data from documentation using the descriptive-analysis method. The results of the study concluded, Islamic education transformation is greatly required to gain solutions by strengthening Islamic educational management, Islamic educational leadership, and educational policy on character educations. Character education in Islamic Education does not only teach right or wrong but also teaches students to commit to doing the right thing. The character emphasizes practice in the students’ daily lives such as the implementation of, honest (siddiq), trustworthy (amanah), smart (fathonah) and conveys the truth (tabligh), in relationship, a good citizen attitude.

Keywords: Islamic educations; turbulence era, 4.0 industrial era; character education;

Abstrak
Masyarakat Islam harus melakukan modernisasi pendidikan Islam dalam segala aspek pendidikan, kurikulum, tata kelola institusi, model dan strategi pembelajaran sesuai dengan kebutuhan era industri 4.0 (era turbulensi). Dalam kemajuan tersebut, pendidikan karakter telah menjadi oase di tengah dekadensi moralitas generasi milenial di masyarakat saat ini dan benteng pencegah kehancuran suatu bangsa. Metode penelitian menggunakan studi pustaka dengan mengumpulkan data dari dokumentasi menggunakan metode analisis deskriptif. Hasil penelitian menyimpulkan, transformasi pendidikan Islam sangat diperlukan untuk mendapatkan solusi dengan memperkuat manajemen pendidikan Islam, kepemimpinan pendidikan Islam, dan kebijakan pendidikan pada pendidikan karakter. Pendidikan karakter dalam Pendidikan Islam tidak mengajarkan benar atau salah, tetapi juga mengajarkan siswa untuk berkomitmen melakukan hal yang benar. Karakter tersebut menekankan pada...
praktik dalam kehidupan sehari-hari siswa seperti pelaksanaan, jujur (siddiq), amanah (amanah), cerdas (fathonah) dan menyampaikan kebenaran (tabligh), dalam menjalin hubungan, sikap warga negara yang baik.

Kata kunci: Pendidikan Islam; era turbulensi, era industri 4.0; pendidikan karakter;

**Introduction**

The problem in Islamic Education is caused by internal and external factors, namely power relation and education orientation, curriculum aspects, teaching methodology, professionalism of human resources, cost and education environment. Meanwhile, the external factors are multicultural, globalization, poverty, and government provisions.¹

An embarrassing case is a corruption case in educational institutions, even at the Ministry of Education. The reasons for this include (1) low quality of human resources (2) disintegration of education providers (3) poor education management (4) education capital. There is some moral decadence among students due to the negative influence of global culture and communication technology in this industrial era. Cases that occur among adolescents, such as drug abuse, student fights, motorcycle gangs, content abuse, consumption and the spread of hoaxes on social media have troubled the community. Therefore, it is very necessary to strengthen character education in Islamic education in students. Thus, the goal of Islamic education to produce students who are highly creative, productive, competitive and religious in the era of disruption can be achieved.

Methode

This paper uses library research by collecting data and literature related to the topics of discussion. These data are collected from the documentation in form of book, paper, journal, and article. The discussion method is descriptive-analysis, which is describing and elaborating main ideas related to the topics being discussed. It will present these ideas critically through primary and secondary references related to the theme2.

Industrial Revolution Era 4.0

Friedrich Engels and Louis-Auguste Blanqui introduce the term of “Industrial Revolution” in the mid-19th century.3 On the first phase, the invention of machines emphasized on production mechanics. On the second phase, there was integrated massive production with quality control and standardization. On the third phase, the massive uniformity relied on computerization integration. Fourth phase focuses on digitalization, automation, and the combination of internet and manufacture.

Industrial revolution era 4.0, also called cyber era or space and time boundless era, stimulates and grows the science-technology advancement that generates the creation of smart machine, autonomous robot, even artificial intelligence. This era provides many new opportunities on various field and creates complex and difficult challenges. It requires human resources with good quality that master science and problem solving in the society4.

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3 Sigit Priatmoko, TA”LIM: *Jurnal Studi Pendidikan Islam* Vol.1 No.2 (Juli 2018), 229.
The generation in millennial era is “internet generation” who interacts more dynamically and has limitless connectivity. They are living and growing on the digital world, very familiar with modern technology such as tablet, gadget, portable computer and operational system such as Android and iOS, as information source that can be accessed anytime and anywhere. Arif Rahman, quoting Asef Bayat and Linda Herrera, Technology Information (ICT) that comes from an handphone connected to the internet has changed the learning pattern, culture, social life, perspectives on the future and political involvement.

By changing the sociological-psychological attitude of the community, education must do a revolution to demand new ways in the subject mastery in learning. Don Topscot in H.A.R. Tilaar stated that there are three study elements that are foreign in old culture, namely: interactive, participative, and discourse. Therefore, a new pattern in the learning process is needed to facilitate students and teachers. The students are expected to be more motivated, thinking more dynamically, creatively, and innovatively, which will create a more enjoyable learning experience.

Learning with internet improves the students to be more active. Students can directly interact with another student, or experts on their field. The learning process is not limited to class room, teacher as facilitator, the learning source can come from anywhere, learning becomes the information analysis process.

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Of course, the disruptive era does not only affect the learning and teaching process in class, but also all the education system through the utilization of Management Information System at school, such as digital based education service at school or one-stop digital education management system used for all activities, such as curriculum, teacher, learning, financial report, assessment, subjects management, and infrastructure. It also becomes an information dashboard to the public, providing information about the program, vision and mission of the suggested madrasa.

**The Refinement on Character education**

According to experts, the broad definition of education (pedagogy) is an effort in developing knowledge, skill, experience and prowess of young generation as an effort to prepare them in fulfilling their life function, both physically and spiritually. In a narrow definition, education is school or other educational institution, both formal or informal. The aspects that are commonly considered on education are awareness, enlightenment, empowerment, and behavior change.

It can be concluded that education should be more emphasized on process of the behavioral management in students. Educational success is no longer cognitively oriented with number as measurement, but on the process of how students grow morals, empathy, honesty, bravery and empathetic personality, supported by good cognitive and psychomotor control, or better known as character education.

As we may have known, Japan took a massive loss from atomic bomb but rebuilt quickly through character education around family and community. The results of character education,

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9 Umiarso dan Asnawan, Kapita Selekta …, 48.
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*sekatsu*\(^{10}\) and *tokatsu*\(^{11}\), intended to change a person to become whole (*insan kamil*), transfer Japan into advanced, hardworking, strong, humble, high nationalism, discipline, law-abiding, cooperative, independent, and respectful nation\(^{12}\).

In literal definition, *akhlak* is defined as temperament, behavior, attitude, character\(^{13}\). According to Ibn Miskawaih and al-Ghazali, the soul expression that shows up easily without thoughts and consideration. Something can be defined as *akhlak* if it has five characteristics: has been ingrained; easy to do; acted on one’s own volition; acted with genuinely, and intended for Allah SWT.

Essentially, character education emphasizes on moral aspect, that grows religious attitude, morale and care for the environment (*insan kamil*). Therefore, it must be planted at early age and practiced continuously. Umiarso and Asnawan quoted Lickona (1992), who emphasized three good character components: 1) moral knowing, which consists of (a) moral awareness, (b) knowing more values (c) perspective taking, (d) moral reasoning, (e) decision morale, (f) self-knowledge. 2) Moral Feeling, another aspect that must be planted as a source of strength to act according based on moral principle, that consists of: conscience, self-esteem, empathy, truth loving, self-control, and humility. 3)


\(^{11}\) The tokkatsu program for each student is actively involved in activities designed together where all group members have their respective assignments. *Ibid*, 74.


\(^{13}\) Abuddin Nata, “Pendidikan Islam Di Era Milenial”, Jurnal Conciencia (2015), 4-6.
Moral Action, which consists of competency, willingness, and habit.

Sri Narwati in her book Umiarso and Asnawan listed the character values\(^\text{14}\) that come from religion, Pancasila, culture and Indonesian educational purpose, namely religiousness, honesty, tolerance, discipline, hard work, creativity, independence, democratic, curiosity, national spirit, national pride, valuing achievement, communicative, loving peace, likes to read, care for the environment, care for the community, and responsible.

Character education in Islamic Education is more than a moral education (right or wrong), but also teaches understanding in doing the right thing. In Islamic Education, there are two large paradigms. The first paradigm regards character education as narrower moral understanding, and think students need certain character that should just simply thought. The second paradigm, from a broader perspective, views character as pedagogy, placing individuals that involves in education world as the main figure of character development.

With characterized Islamic Education, this country is expected to be ready in supporting 4.0 education in the future, which emphasizes on life skill and makes the country to be more competitive\(^\text{15}\). Therefore, strengthening the character education is very important in an era without boundaries, because character shows identity, strength and unity of a nation as well as becomes the purpose of insan kamil creation, in accordance with the purpose of the national education.


\(^{15}\) Umiarso dan Asnawan, *Kapita Selekta ...*, 57.
Islamic Education in Industrial Era 4.0

Islamic Education have been doing transformation on paradigm, method, and development strategy to become current and relevant with global situation and condition. It is still in corridor of purposes and dreams that leans on Al-Qur’an and Hadith and stands on the purposes of nation’s educational system, foundation and philosophy. Holding on the principle of al hifzu ‘ala qodiimi as shoolih wa al akhzu ‘ala jadiidi al aslah (preserving good tradition and adopting better novelty) is a mantra of progress, continuity, openness paradigm with innovation to transfer beneficial knowledge and technology for Islamic Education development16.

In the last 10 years, Islamic Education keeps changing to become role model for other studies, marked by the increase in number of institutions17, the creation of Islamic schools such as Integrated Islamic School (Sekolah Islam Terpadu)18, Boarding School, Modern Islamic Boarding School Based, and Qur'an recitation school (Sekolah Tahfidz). The transformation of Islamic higher education from STAIN to IAIN or from IAIN to UIN. “image” is not the only updated element, but also content and offered programs such as pesantren entrepreneurship program19, etc.

If the correct approach is implemented, it will create many productive, researcher, inventor, and science developer graduates. The logic consequence from this: (1) Erasing

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16 Arif Rahm, dkk, Pendidikan Islam ...., iii.
dichotomy paradigm of Islamic and general studies (2) changing the patterns on Islamic Education from indoctrinate to participative (3) changing ideological paradigm to scientific paradigm that leans on the revelations of Allah (4) curriculum reconstruction is needed.

Paradigm in Islamic Education tend to align itself on humanity and social studies, even though modern science (physics, chemistry, biology, and mathematics) and technology development are absolutely needed. These studies have not received the appreciation and place they deserve in Islamic Education system. This means that the integration of Islamic Education in transformation to become good quality Islamic Education requires science. Spiritual and character education as the distinctive character of a nation are needed. Education in Islam is an integration of rationality, empiric, and comes from the revelations in Al-Qur’an and Sunnah.

The trend in education is coming back to religiosity by incorporating a touch of global knowledge. Therefore, Islamic generation must be prepared for the competition in global constellation, and the transformation on the purpose of Islamic Education does not only create workers, but also individuals who can compete and create their own opportunity (jobs) with basis of innovativeness, creativity, character and entrepreneurship.

20 The word integration means integration to the point of becoming a whole force. Departemen Pendidikan Nasional, Kamus Besar Bahasa Indonesia (edisi ketiga), (Jakarta: Balai Pustaka, 2003), 437.
This will directly affect the economic prosperity, advancement and independence of the nation. 23.

The changes in Islamic Education will automatically change the method on the teaching and learning done to students24. The first change is in critical and creative learning with problem solving, because in the society, the ability to analyze, find solution, and to do trial and error is needed. Teacher acts as facilitator, mentor, motivator, and supporter for dialogic learning. Meanwhile, student acts as an active subject, study partner, and individual who has experience.

The second change is in the subject’s character on the learning process. The teacher paradigm as centered learning should be changed to teacher as a professional that guides and directs the learning process on their students so that they can communicate their opinion, think systematically, confident, and are able to solve problems with their knowledge. The third change is that the learning source does not only focus on text books, but also from experience of the students, internet, print media, electronic, or other media25.

Related to the topic, Drijvers, Boon, and Van Reeuwijk, 26 proposed three didactic function from technology in Islamic Education learning, which are: (1) technology for doing, functions as a replacement of paper and pencil on learning activities (2) Technology for practicing skills, functions as a study environment to refine internal skills, (3) technology for developing conceptual understanding, functions as a study environment to develop conceptual understanding. If technology

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25 Musthofa Rembangy, *Transformasi...*, 151-156.
is well integrated to the learning process, it will create a new, up to date and fun learning pattern. Amin Abdullah regarded “creative imagination” as a part in finding ideas, even in two different framework concepts, thus arranged into a fresh configuration27.

According to H.A.R. Tilaar28, to face the globalization era, revolution in education is needed in Indonesia, the fields that need to be revolutionized are: (1) Science education, Indonesian students has won international science competitions, Olympics, and robotics. However, based on the PISA (Programme for International Student Assessment) test in 2019, the quality of literacy, science, and mathematics of Indonesia is far below China, Singapore and Maccau29. (2) Creativity education. In an era filled with information, a habit to filter information and grow new ideas is needed. Japan and Singapore prioritize creativity education for its students, turning them to developed country with far less natural resources. (3) Digital education, using information technology such as computer and its application. (4) Higher education, this institution has an important role in maintaining, developing, and innovating science application.

Modernization on education would become useless if it is not supported by teachers’ competence, because they are the essential part of education. Therefore, teachers will be required to: master

digital technology, be an agent in cultural transformation, participate in pedagogical development, has competence in social awareness, develops professionalism, and be innovative, creative and adaptive. In addition, the reinforcement of Islamic study institution also need attention, namely reinforcement in management, leadership, and policy reformation by referring to the global education curriculum that has been tested and is integrated to the Islamic Education curriculum.

The nationalism is integrated in every course with cultivation of national pride, culture, language, customs and become the keeper of national unity through national knowledge. Students can apply these on their relationship with another students, teachers, employees and community. This is needed because the lives of millennials are borderless.

Islamic Education is transforming and oriented to character education. According to Al-Ghazali, character education is applied on children with: (1) God's love (Rahmat Ilahi), children have balanced personality between logic and desire. (2) Studying good character, with a committed practice (3) Habituation (I’tiyad) to ingrain the good traits (4) A good figure, children are a good imitator. Meanwhile, according to Ratna Megawangi, the method of character application is applied by knowing the good, loving the good, desiring the good, and acting the good. Character

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30 H.A.R Tilaar, Membenahi Pendidikan Nasional, (Jakarta: Rieneke Cipta, 2002), 143.
32 Umiarso dan Asnawan, Kapita Selekte …, 78-79.
is something that exists and must be known, loved, desired, and acted.

The character education in madrasa can be implemented with these methods: (1) teaching, which is directly describing or inviting speakers (2) becoming a good figure, learning will be effective on children by seeing, analyzing and imitating. (3) Deciding priority, the result will be evaluated by deciding standard character, that must be understood by students, parents and people 34 (4) Practical priority, education is not only knowledge and skill, but also essential values on the lives of the people such as ingraining politeness and honesty. (5) Reflection, students’ opportunity in presenting character understanding through writing that can be accessed by others35.

The curriculum of Islamic school is changed by dividing it into three groups: (1) science group, (2) language and skill group (3) character and religious studies group. Subjects on science group are mathematics, integrated natural science (biology, physics, chemistry), and integrated social science (history: history of world, Indonesia and Islam, economy, and geography).

Subjects on language and skill group are Bahasa Indonesia, English, foreign language: Arabic, Mandarin or foreign language of choice, and regional language. These are subjects that can be implemented in the scope of school, for example on Monday everyone in school must speak Bahasa Indonesia, Tuesday is English, and so on. While skill section such as application operation, computation, simple technology and robotic are choices in obligatory extracurricular, aside from sport, local art and culture.

34 Bambang Q-anees, Pendidikan Karakter berbasis Al-Qur’an, tp. 106.
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The character emphasizes on practice in the students’ daily lives such as implementation of, honest (siddiq), trustworthy (amanah), smart (fathonah) and convey the truth (tabligh), in relationship, a good citizen attitude that is based on religious and daily traits, and implementing diligence in daily prayers on school, home and society. In Madrasa, the time portion for religious studies group (akidah, akhlak, fiqh, qur’an hadith, and history of islam) is very short, which is 8-12 lesson hour every week. This portion is made with assumption that students also study religion in informal path, such as madin, pengajian in mosque, mushola, and with local religious leader. If Madrasa is integrated with Islamic boarding school, the decision for the duration of religious studies is appropriate. If it isn’t, the output of religious studies will not meet the expectations.

Education no longer orients to passing marks anymore, but on result of comprehensive assessment that covers the understanding of science, language and skill, character and religion. Preparing students with life skill that includes entrepreneurship, creativity, innovativeness and confidence will solve problems in life and create jobs with their original ideas.

Conclusion

The character education refining becomes an important element in facing the ongoing disruptive era. This country needs to be more competitive with cognitive, affective, psychomotor and spiritual power. In a 4.0 industrial revolution era, education no longer orients to knowledge transfer, but more to the creation of innovative, creative, democratic, and religious students with good character and entrepreneurship spirit.

The transformations implemented in Islamic Education are: (1) Improvement on applicable rules (2) Education oriented to future demands (3) Curriculum review and improvement. (4)
quality improvement of Madrasa management (5) Improvement on capacity and capability of Madrasa leadership (6) Teacher competence improvement (7) Community involvement in expanding Madrasa (8) academic, administrative and learning facility digitalization to The Refinement on Character education to strengthening Islamic Education in Industrial Era 4.0. Character education in Islamic Education is more than a moral education (right or wrong), but also teaches understanding in doing the right thing

References


