

## **The Analysis of Character Strengthening Strategy based on Teaching of Ki Hajar Dewantara in Industry 4.0**

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### **Abstract**

Every human being has a different character. It adjusts from his life experience while studying both at school and in the community, and it is influenced by gender and technology. The thinking developed by Ki Hajar Dewantara provides a strong foundation for building humanistic character. Social reality, understanding, and practice of the teachings tend not to be the foundation of the character in the school due to gender inequality which is a social phenomenon. The purpose of this study, to analyze the implementation of educational policies that can improve the ability of students by the teachings of Ki Hajar Dewantara. The method of this study used meta-analysis, which is combining, summarizing and reviewing, and analyzing the data from previous study results to solve according to social reality. Indonesian education should be based on local culture because by understanding cultural thinking; we can also follow the nature of educational philosophy, namely by learning to develop character; thus, it improves the ability of students.

**Keywords:** Strategy, Character, Industry 4.0

### **Introduction**

Human nature, both men and women need education, because if they not educated, they will not develop in where they live. Since a biological perspective, humans are male and female creature among many others that are still able to survive in the world today. Social phenomena that occur today are gender inequality (Dwiningrum, Septiarti, and Widyaningsih, 2012, p. 140). They state that their gender influences the character. It can prove by the teacher data ranging from elementary schools, secondary schools and special schools, where the number of female teachers is higher in the even semester 2018/2019 of the academic year from total teachers of 2,754,921, and the number of female teachers is 1,773,278 while the teachers males numbered 981,673, if we compared to female teachers it means that 1.8: 1 (Dikdasmen, 2019).

Moreover, based on the data of Ministry Education and Culture in the year 2016, the number of male students is 13,288,345, while female students are 12,198,161. It means that the number of male students higher than women. In the context of socio-cultural aspects, Kusumawati (2007) states that gender is a concept that is used to identify the differences between men and women and the gaps among rising gender stereotypes.

The Strengthening character means requiring education. In addition, based on the Republic of Indonesia Law Number 20 of 2003 concerning the National Education System in Chapter VI Article 13 paragraph 1 states that the education path consists of formal, non-formal, and informal education that can complete each other. Thus, education does not only belong to the school but also in the surrounding environment. The creation of thinking skills as a foundation of life could be started from school as formal education, which will strengthen the theory of human thinking. For instance,

humans recognize good ways of thinking, comprehensive, measurable, logical, systematic, and a priori thinking.

This time, schools must be able to use technology as a learning medium. In Ki Hajar Dewantara's learning, the educators are not only assigned to transfer knowledge in front of the class, yet they must be able to open their mind and adapt to technology. Educators are expected to give a role model while giving encouragement and being able to encourage students to have characters who can harmonize with local culture-based technology. Educators not only focus on making students smart yet also motivating, and building character; thus, they become human or individuals with integrity (Harususilo, 2018).

Furthermore, there are four educational strategies proposed by Ki Hajar Dewantara, they are 1) education is a cultural process to encourage students to have an independent and independent spirit; 2) forming the character of students for national-mindedness, yet still open their mind into international development; 3) building personal students thus they are pioneering spirits; and 4) educating means developing the potential that is the Nature of each student (Wiryopranoto et al. 2017).

Moreover, those strategies are implemented in the three domains of educational by Ki Hajar Dewantara, i.e., creativity, taste, and intention. This term develops into thought, appreciation, and experience. Social reality in understanding and practicing these strategies tends not to be the basis for the foundation of education in schools. Education in Indonesia should be based on local culture, yet by understanding the culture; thus, they could understand the nature of the philosophy of education itself.

Muhyidin (2009) argues that one of the main problems in education and culture is the problem of national identity. However, on account of globalization, national culture, especially local culture, will begin to erode. Consequently, foreign culture is increased and erode the existence of local culture. The phenomenon of school-age children who love foreign culture makes awareness to improve and preserve local culture, so it becomes an integral part of learning in school. Furthermore, A local culture-based education that can enhance national identity, i.e., folklore, folk songs, regional rituals, regional customs, and so forth.

The strengthening of character education has been stipulated in Presidential Regulation Number 87 of 2017 in concerning Strengthening Character Education (SCE) and strengthened by the Minister of Education and Culture Regulation Number 20 of 2018 in concerning Strengthening Character Education in Formal Education Units. Strengthening the character and literacy of citizens is an essential part of the spirit in the performance of education and culture. However, the government might forget even though there are non-formal and informal educators. It turns out that Consequently, the government is unable to regulate the community for character based on *Pancasila* and the 1945 constitution. Education and Culture actors, i.e., government, teacher, parent, and society must be able to be a source of strength to improve the performance of education and culture in developing children's character and literacy Indonesia.

Education must be a place to breed religious values, honesty, hard work, cooperation, and others are toward the nation's sovereignty and progress (Widyastono, 2012). Characters are formed and developed by the teacher. The teacher holds the leading role, though he is not the only one. Teachers as role holders in the process of forming and developing the character of students as the next generation need to expand pedagogical horizons by considering the role of transferring, transforming, and transcending in carrying out the learning process and developing learning methods based on local culture (Indriyanto, 2014). In general, schools that implemented culture as a vehicle that can strengthen character education, and they have better achievements than schools that have not implemented a culture (Wahono, Lestari, Suhardiyanto, & Wardhani, 2018). Culture that consists of evolution is inseparable from technological developments.

Furthermore, culture in the form of thought is inseparable from technological developments. Technological developments are a core element that allows humans to increase the benefits collected for social and personal development (Huda, 2019). The educators cannot avoid the development of the era that entered the Industrial Revolution 4.0. It relies on cyber-physical systems in developing character strengthening i.e., pilgrimage to the grave of educational figures, flag ceremony, public promises with public concern about education, held a *Dendang Kencana* in the form of a musical drama to lift Indonesian children's songs, photo exhibition in several public locations, book exhibition on Asian Games history, wide screenings of struggling figures, and various things about local history. It raises the question, how can these programs be part of a character strengthening program if it is not carried out continuously and only on every event? Educational and cultural programs need to be carried out together so that education and culture can work together in developing regional culture-based characters.

## Method

This study uses the Meta-Analysis research method, which is an analytical technique combining, summarizing, and reviewing, and analyzing data from previous studies in one theme (Neil, 2006). This study analyzes various results of research on the application of character education from policy to implementation. Documents can be obtained from the institution under study or report on research results. If the data is sourced from a document, the appropriate research method used is document analysis, whereas if the data is sourced from existing research reports, the method used is a meta-analysis (Mulyatiningsih, 2011, p. 191). Research data has been obtained from previous researchers; researchers then analyzed and reported it again in the form of new research. Thus, this research report is not a duplication of the research that has been done. The research data in the meta-analysis is in the form of secondary data taken by the documentation method (the results of the present research and mention the name of the researcher). Then the data analysis is reported by summarizing and extracting the essence of the research results. Besides, data is reported back in quantitative and qualitative descriptive ways (Mulyatiningsih, 2011: 196). The results of previous studies which are the material for this meta-analysis, namely:

1. Primary school teachers' perceptions about character education (2016) by Melek Demirel, Demet Özmat, and Imgehan Özkan Elgün;
2. Ki Hadjar Dewantara's Character Education: Critical Study of Character Thinking and Character in Islamic Review (2015) by Muthoifin and Jinan; Implementation of Character Education in Sdit Nurul Ilmi Jambi City (2015) by Aisyah, Emosda, Suratno;
3. School Strategy in Strengthening Character Education for Students by Maximizing the Role of Parents (2017) by Wulandari and Kristiawan;
4. Factors Affecting Knowledge About the Environment in Students at the State Junior High School /Islamic Junior High School and the State Senior High School /Islamic the State Senior High School based on Adiwiyata in Labuhanbatu City (2016) by Silalahi, Syarifuddin, and Sudibyo;
5. Implementation of Adiwiyata Program on Cognitive, Affective and Psychomotor Aspects of Environmental Management of Primary Schools in Kendari City (2015) by Zumadil, Mustari, and Hamzah;
6. The Development Teaching of Project Based Learning (PjBL) Writing Containing Characters (2017) by Indriyani and Ramadhan.

## Results and Discussion

Character education requires strengthening both in terms of policy and implementation in the field both at school and in the community. The policy has been constitutionally ratified, then how can it be implemented that can balance the differences between women and men so as not to cause a

national identity crisis. Tanjung (2018) argues that there needs to be a paradigm shift, the mindset in this era of change, requires an evolution in the education system in Indonesia to produce superior human resources. The education system emphasizes aspects of creativity, innovation, and entrepreneurship. This step is expected to be able to face the challenges of changing times.

Emerging technology with its distinct facilities could enhance individual performance by improving abilities and capacities for wise and appropriate operation of technological tools. By critically exploring the professional and ethical balance involved with technology-based tools in society and how they might underpin their users' social and personal awareness, this paper gives feedback that provides insights about emerging technological trends. This is done with reference to particular guidelines, enabling a clearer understanding of the importance of the impact of technology on the human condition (Huda, 2019).

The implementation of character education in SDIT Nurul Ilmi Jambi City are several things, namely (1) character education planning is carefully arranged in the learning tools, the main characters are religious and supported by other characters ; (2) the implementation of character education in learning integrated into each subject, local content, and habituation in school; character education in extracurricular activities contains noble values; barriers to implementation include the characteristics of students, the family environment and society; adequate carrying capacity of facilities and facilities; (3) the process of evaluating character education is carried out continuously (Aisyah, Emosda, dan Suratno, 2015). Culture processes the character of students with learning experiences through devices, modules, and the concept of Ki Hajar Dewantara, so the students become independent.

The teaching of writing a fairytale text with PjBL characters is valid, practical, and useful. The module validation value provided by the expert is 95.12% (very valid). The practice value of the module provided by the teacher is 93.05% (efficient). The practice value of the module given by students is 85.17% (efficient). The module practice score given by student activities is 91.3% (very active). The module effectiveness score based on student learning achievement in writing fairy tale texts is 86 or A (very effective). The score of module effectiveness based on student achievement in the text of knowledge fable is 88.3 or A (very useful). Furthermore, the module effectiveness score based on the results of the assessment on student attitudes is 92.6 or A, and the characters are 92.21% or A (very useful) (Indriyani and Ramadhan, 2017). This learning shows that it can improve character in the form of attitude.

Character learning in accordance with Ki Hajar Dewantara's concept aims to educate children to have a right attitude, be praised, be civilized and achieve happiness that is in accordance with the nation's noble culture, and when viewed from an Islamic perspective, there are differences in the concept of Ki Hadjar's character which does not emphasize the monotheism and our servitude to God Almighty aspect even though morality in the concept of Islam is a good and commendable deed that cannot be separated from the values of worship and faith in God Almighty to achieve the highest happiness in the world and the hereafter. The main character used by Ki Hajar is "*Pancadarma*" or five principles, which include the principles of independence, national principles, humanitarian principles, aesthetic principles, and fundamental principles. Moreover, the principles in the character of Islam are the Qur'an and al-Hadith, which always prioritize aspects of worship and faith (Muthoifin and Jinan, 2015). The existing learning differences mean that Islamic character learning strengthens the learning of Ki Hajar Dewantara's character at school. Besides, Islamic character learning upholds the role of parents.

The elementary school strategy in an effort to maximize the role of parents to strengthen character education for students are: (1) increasing character values as part of the formulation of the vision, mission, goals of the institution, and trying to make it happens through real daily activities, (2) building relationships (3) preparing truly educated educators so that they prioritize educational assignments and are responsible for the success of their students' character education, (4) the

condition of the school environment that is safe, comfortable and stimulates character education, and Islamic environmental conditions in worship, work, social interaction, and cleanliness (Wulandari and Kristiawan, 2017). The role of parents in developing character education needs to be supported by principals and teachers, as well as educational staff.

The implementation of the character building program in SDN Negeri 62 Palembang are as follows: (1) students are accustomed to greeting friends, school principals, the teachers, and also with school employees when they meet at morning/afternoon or in the afternoon/evening. (2) Students have tolerance and mutual respect to other students, respect the differences, playmates, and associates, both at school and outside, and respect the differences in religion and socio-cultural background, (3) students' honesty to say the right thing, (4) students have politeness and used to say something that appreciated the others. They tend to choose a good diction to say something and expressed their feeling (polite words), (5) students have shown the characteristics of noble principles, such as habituation of students reading Al -Qur' an on every Friday and must be able to read the Qur'an accurately and adequately and be accustomed to the obligatory Dzuhur prayer in congregation in the school, and (5) the student has concern for his environment (Wulandari dan Kristiawan, 2017). Character education is a part of the personality, an attitude that must be developed through a systematic and integrated program to make students aware of preserving local culture but still respecting national and universal values.

The activities indicate this carried out by students at school and routinely, namely cleaning the study room and schoolyard. They used to do this without being instructed by the school officials. Students are also used to throwing out the trash that they found in the school area. Besides, the role of parents is significant to strengthen the character of students. This is meant to achieve maximum character education outcomes. The school should also be able to maximize the role of parents. They must empower all school resources to collaborate with both parents of students. Thus the character education in schools can run effectively and efficiently.

Characteristics of character education programs are ideal when opinions about the objectives and essential characteristics of the program are useful. Moreover, most of the teachers ( $n = 28$ ) agreed on their main goal was to improve honesty students, respectful, empathize, patients, and having strong communication skills. Some of the teachers ( $n = 15$ ) thought that the purpose of character education is to enable students to manifest themselves.

In addition, another goal of this is to shape student empathy in society; modify the development of good behavior, raise them with universal and national values. One quotation used from the teacher's opinion is: "The basic goal of effective character education is to improve individuals who are more responsible, honest, and respect themselves, the environment and society" (positive characteristics) (Demirel, Özmat, and Elgün, 2016). Ideal character education is to enable students to recognize their own identity through attitudes and communication skills so that they can become pioneers in their environment.

Students build and develop the soul as a pioneer of environmental preservation through knowledge, information sources, and parental support. This is supported by the results of research that: (1) there is a difference in knowledge mastery about the environment between the students at the State Junior High School /Islamic Junior High School and the State Senior High School /Islamic the State Senior High School (*Adiwiyata*) based on Adiwiyata in Labuhanbatu district ( $t_{count} = 4.109$ ;  $P = 0,000$ ); (2) there is an influence on the level of parental education on environmental knowledge ( $F_{count} = 3.410$ ;  $P. = 0.003$ ); (3) there is the influence of parents' work on environmental knowledge ( $F_{count} = 3.010$ ;  $P. = 0,000$ ); (4) there is no influence of student gender on environmental knowledge ( $F_{count} = 0.373$ ;  $P. = 0.542$ ); and (5) there is the influence of the source of information on environmental knowledge in N / Middle School and High School / MAN Adiwiyata students in Labuhanbatu District ( $F_{count} = 6.593$ ;  $P. = 0,000$ ). Therefore, the results of this study imply that the factors that influence students 'knowledge of the environment have an essential role in students' attitudes

towards the environment (Silalahi, Syarifuddin, dan Sudibyo, 2016). The potential of students is within each of them. This potential must be developed through balanced learning from the three educational domains and supported by a sustainable natural environment. Edmonds (1979) states that effective schools get that way partly by making it clear that pupil acquisition of basic school skills takes precedence over all other school activities.

Cognitive, affective, and psychomotor abilities regarding environmental management of elementary school students who carried out the *Adiwiyata* program are higher compared to schools that have not implemented the *Adiwiyata* program. In the category of very high cognitive aspects of schools that implement the *Adiwiyata* program (SDN 1 Baruga and SDN 11 Mandonga) as many as 55% and 64% while in the schools that have not implemented the *Adiwiyata* program (SDN 6 Poasia) there are no students who reach this category. On the other hand, in the low category, 48% of students who have not implemented the *Adiwiyata* program are included in this category, whereas there are no schools that implement the *Adiwiyata* program in this category. The results of the study revealed that the affective abilities of *Adiwiyata* school students were higher compared to schools that were not yet. It can be seen in the very high category of *Adiwiyata* school students at 73% while in schools that have not yet graduated only 5% of students. Budimansyah, Hood, & Nurulpaik (2018) state that a student-centered approach to learning has a powerful effect on the development of student character as an authentic learner.

Based on the results of observations that have been inducted, it is evident that the concern of students in schools that carry out the *Adiwiyata* program on the cleanliness of the school environment is higher than the students in schools that have not implemented the program. This can be seen in the behavior of students who do not care about the garbage scattered in schools that have not yet been adulterated. Whereas at *Adiwiyata* school the school environment is clean, free of rubbish scattered on account of the behavior of students who care about the cleanliness of their environment (Zumadil, Mustari, dan Hamzah A., 2015). The strategy was developed into a character education model.

One of the characters education models developed is a problem-based character education model. Aman et al. (2014) suggested that the problem-based education model (PBE) could be used by the government in developing character, especially regarding their personal and social skills. The character education model is validated in terms of objectivity, practicality, and efficiency. The PBE model character education assessors involved in the development of the first trial phase amounted to 10 people consisting of 3 sociology experts, three character education experts, two evaluation experts, and two learning technology experts. The assessment uses a scale of 5, with a minimum score of 1 and a maximum score is 5. The average score of the first stage of the evaluation model, which is 3.76, means that the model can be implemented.

## Conclusions

Ki Hajar Dewantara's education strategy needs to be supported by parents, religious character education, and environment and problem-based, which is actually with technology a complete character education model. The model is able to answer the development of the era of technological disruption because it is able to produce characters that are independent, creative, and innovative but do not damage the environment and in accordance with religion. This model can be used as a government as a basis for creating a policy of renewal.

## References

Aisyah, N., Emosda, dan Suratno. (2015). Implementasi Pendidikan Karakter di SDIT Nurul Ilmi Kota Jambi. *Techno-Pedagogi* 5(1). 50-63. <https://online-journal.unja.ac.id/index.php/pedagogi/article/view/2286>

- Aman, et al. (2014). Pengembangan Model Pendidikan Karakter Sebagai Upaya Peningkatan *Personal Dan Social Skill* Bagi Anak Jalanan Di Daerah Istimewa Yogyakarta. *Jurnal Pendidikan dan Kebudayaan Kemdikbud* 20(3). 423-429. DOI : 10.24832/jpnk.v20i3.154
- Budimansyah, D., Hood, H. S., & Nurulpaik, I. (2018). Strengthening Students' Character as Authentic Learners: Effects of Advanced School Leadership and Boost Learning. In *Annual Civic Education Conference (ACEC 2018)*. Atlantis Press.
- Demirel, M., Özmat, D., and Elgün, I.O. (2016) Primary school teachers' perceptions about character education. *Educational Research and Reviews* 11(17). 1622-1633. DOI: 10.5897/ERR2016.2729, DOI: 10.5897/ERR2016.2729 dan <http://www.academicjournals.org/ERR>
- Dwiningrum, S. I. A., Septiarti, S. W., and Widyaningsih. 2012. *Ilmu Sosial dan Budaya Dasar*. Yogyakarta: UNY Press
- Edmonds, R., (1979). Effective schools for the urban poor. *Educational leadership*, 37(1), 15-24.
- Harususilo, Y. E., (2018). Ki Hadjar Dewantara dan 'Guncangan' Pendidikan Era Industri 4.0. KOMPAS.com. ", <https://edukasi.kompas.com/read/2018/05/02/15561621/ki-hadjar-dewantara-dan-guncangan-pendidikan-era-industri-40>
- Indriyanto, B. (2014). Mengkaji Revolusi Mental dalam Konteks Pendidikan. *Jurnal Pendidikan dan Kebudayaan*, 20(4), 554-567. <http://dx.doi.org/10.24832%2Fjpnk.v20i4.165>  
<http://dapo.dikdasmen.kemdikbud.go.id/guru/1/040000>  
<http://statistik.data.kemdikbud.go.id/>
- Huda, M. (2019). Empowering application strategy in the technology adoption: Insights from professional and ethical engagement, *Journal of Science and Technology Policy Management*, 10(1), 172-192, <https://doi.org/10.1108/JSTPM-09-2017-0044>
- Indriyani, V., (2017). The Development Teaching of Writing Fable Text Module with Project Based Learning (PjBL) Containing Characters. In *2nd Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2017)*. Atlantis Press.
- Kusumawati, A. (2007). Kepemimpinan dalam Perspektif Gender: Adakah Perbedaan?. *PROFIT (JURNAL ADMINISTRASI BISNIS)*, 1(1). <http://ejournalfia.ub.ac.id>
- Law No. 20 Year 2003 on National Education System
- Muhyidin, A. (2009). Pemertahanan Nilai-Nilai Budaya Lokal dalam Pemelajaran Sastra di Sekolah, Makalah KIK HISKI XX 2009, Bandung. <http://badanbahasa.kemdikbud.go.id/lamanbahasa/node/306>
- Mulyatiningsih, E. (2011). *Riset Terapan Bidang Pendidikan dan Teknik*. Yogyakarta: UNY Press
- Muthoifin dan Jinan, M. (2015). Pendidikan Karakter Ki Hadjar Dewantara: Studi Kritis Pemikiran Karakter Dan Budi Pekerti Dalam Tinjauan Islam. *Profetika, Jurnal Studi Islam* 16(2). 167-180. DOI: <https://doi.org/10.23917/profetika.v16i2.1852>
- Neill, J. (2006). *Meta-analysis research methodology*. <http://wilderdom.com>.
- Presidential Regulation No. 87 the Year 2017 concerning Character Education Strengthening Republic of Indonesia
- Regulation of the minister of education and culture No. 20 the Year 2018 concerning Strengthening Character Education in Formal Education Units
- Rohadi, T. (2017). Deradicalization Through Multicultural and Local Wisdom Literacies Based Teaching Model at Salaf and Kholaf Pesantren in West Java. *Ijtimā'iyya* 2(1). 21-42. DOI: <https://doi.org/10.24090/ijtimaiyya.v2i1.1050>
- Silalahi, E., Syarifuddin, dan Sudibyo, M. (2016). Faktor-faktor yang Mempengaruhi Terhadap Pengetahuan Tentang Lingkungan pada Siswa Tingkat SMP/MTS N dan SMA/MAN Adiwiyata di Kota Labuhanbatu. *Jurnal Pendidikan Biologi* 5(3). 146-153. DOI: <https://doi.org/10.24114/jpb.v5i3.4313>
- Tanjung, C. (2018). *Tantangan Generasi Mileniel di Era Disrupsi*. <https://www.ugm.ac.id/id/berita/17455-tantangan.generasi.mileniel.di.era.disrupsi>. Yogyakarta: Humas UGM/Ika

- Wahono, M., Lestari, P., Suhardiyanto, A., & Wardhani, N. W. (2018). Implementation of Local Cultural Values in the Habituation Process of Character Education in the School of the Semarang City. In *Annual Civic Education Conference (ACEC 2018)*. Atlantis Press.
- Wiryo Pranoto, dkk. (2017). *Perjuangan Ki Hajar Dewantara dari Politik Ke Pendidikan*. Jakarta: Museum Kebangkitan Nasional, Direktorat Jenderal Kebudayaan, Kementerian Pendidikan & Kebudayaan
- Widyastono, H. (2012). Muatan Pendidikan Holistik Dalam Kurikulum Pendidikan Dasar Dan Menengah. *Jurnal Pendidikan dan Kebudayaan*, 18(4), 467-476. <http://dx.doi.org/10.24832/2Fjpnk.v18i4.102>
- Wulandari dan Kristiawan. (2017). Strategi Sekolah Dalam Penguatan Pendidikan Karakter Bagi Siswa Dengan Memaksimalkan Peran Orang Tua. *Jurnal Manajemen, Kepemimpinan, dan Supervisi Pendidikan* 2(2). 290-302. DOI: <http://dx.doi.org/10.31851/jmksp.v2i2.1477>
- Zumadil, Mustari, dan Hamzah A. (2015). Penerapan Program Adiwiyata Pada Aspek Kognitif, Afektif Dan Psikomotor Tentang Pengelolaan Lingkungan Hidup Sekolah Dasar Di Kota Kendari. *Jurnal Sains & Teknologi*, 15(2). 195-202.