

Character Education Management Model Development Based on Multiple Intelligence for Strengthening “Student-Ethos-Transformation” in the Revolutionary Era of Industry 4.0

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Currently, Indonesia has launched the Industry 4.0 revolutionary era that characterizes the development of modern civilisation with the phenomenon of Internet of Things (IoT), big data, automation, robotics and artificial intelligence. This development trend must also be accompanied by an increase in the quality of students soft skills. Therefore, schools should be given extensive autonomy in the management of character education to strengthen the ethos transformation of students according to the demands of the Industry 4.0. Schools must improve themselves from the educational process which has been more focused on strengthening knowledge (intellectual intelligence) and ignoring the soft skill aspects (strengthening spiritual intelligence and emotional intelligence). This research has produced a Multiple intelligence-based character education management model to strengthen the ethos transformation of students in Gorontalo Province which can be a reference for all levels of education. The method adapted in this study was the Borg and Gall model which included 5 steps: (1) analysing the product to be developed, (2) developing the initial product, (3) expert validation and revision, small-scale field trials and product revisions, and (5) large- scale trials and final products. The developed model produced guidelines of planning, program implementation, monitoring and evaluation of character education management in order to strengthen the ethos transformation of students.

Keywords: *character education, model, Industry 4.0, revolutionary era*

INTRODUCTION

Multiple-intelligence-based character education to strengthen ethos transformation is a fundamental requirement in the Industry 4.0 revolutionary era. Global education in this era no longer creates a boundary given the progress of information technology and telecommunications (Scheunpflug & Asbrand, 2006; Zhao et al., 2007; Prasodjo, 2011; Ferreira, 2013; Molina & Lattimer, 2013; DeNobile et al., 2014). Technological sophistication can affect the character of students to be selfish and arrogant because they feel they have mastered technology and become arrogant with the abilities possessed, they even have the desire to master something by ignoring character values that should be upheld and become a reference in life (Govin et.al., 1990; Kemdiknas, 2010; Salleh et al., 2010; AL-Eqab & Adel, 2013; Mansor et al., 2016). Multiple-intelligence-based character education is one of the solutions to control unfavorable behaviour as a result of Industry 4.0 by making technological progress as a moment to improve self-quality, compete positively, control emotions to avoid negative actions, and always rely on spiritual values (Altan, 2017;; Yaumi et.al, 2018).

Through Multiple-intelligence-based character education, students are guided to develop: (1) spirit and discipline, including consistent actions and responsible behaviour, (2) defense for social groups and altruistic spirit with character education as personal activities based on morality, (3) personal determination or autonomy, character or morality as an effort to strengthen the empowerment of individuals or groups by establishing agreed moral rules (Vender et al. 1990; Lickona, 1991; MAK, 2014; Ash-shidiqqi, 2018). The ineffectiveness of the application of character education in schools inspired author to produce solution ideas through three years of research by making a model of Multiple intelligence-based character education management in Junior High Schools in Gorontalo province.

METHODS

This research was a development research. Development of character education management models to strengthen ethos transformation was based on Multiple intelligence. This model referred to the opinion of Borg and Gall consisting of five steps, namely: (1) analyzing the products to be developed, (2) developing the initial products, (3) expert validation and revision, (4) small scale field trials and product revisions; and (5) large-scale field trials and final products. The fifth stage was executed well by the researchers according to the research procedures resulting in a model along with the guidance. This model had been tested on teachers and students and obtained positive responses for being a solution to the application of character education in schools effectively (Borg, 2003).

RESULTS AND DISCUSSIONS

Development of a Multiple-intelligence-based character education model

The rapid development of science and technology today has added insight into students'

character formation comprehensively. The Industry 4.0 became one of the culminating points to the importance of developing Multiple intelligence-based character management model in schools. Referring to the concept of neuro-science, it can be emphasized that the key to the success of managing character education in students depends on the ability of teachers to develop and synergize the potential of intellectual intelligence (IQ), emotional intelligence (EQ) and spiritual intelligence (SQ) (Berman, 2001; Sukidi, 2004; Agustina, 2006; Hamruni, 2008; Pala, 2011; Agung, 2011; Kamaruddin, 2012; Hidayati et al., 2014). Related to this, the design of programs and management activities of Multiple intelligence-based character education refers to three activities which include: (1) character education- based inbound activities; (2) character education-based outbound activities; (3) integration of character values of Multiple intelligence in subjects; and (4) habituation activities at school.

One of the strategic goals to be achieved from this character education model is to create a "blueprint" for quantum changes in students. The students character development is to create their ethos based on intellectual intelligence, emotional intelligence and spiritual intelligence (Boyatzis & Van Oosten, 2002; Tasmara, 2006; AR, 2013; Pattaro, 2016; Tannir & Al-Hroub, 2013; Novianti, 2017). These transformative values give spirit to students' character development which is expected to bring positive energy to create superior individual qualities. Values are fundamental ideas in accordance with what is desired, which is considered good and right by most members of the organisation (Co Schen, 1992; Bilsky & Schwartz, 1994; Zohar, 2007; Cooper, 2007; Powell & Hughes, 2016).

To develop ethos transformation in schools, schools should have driving values in schools. Ethos development of students which could develop transformative values both developed in character education specifically and integrated in school activities were scouts activities, inside and outside schools. Here, the schools were expected to be able to identify driving values to be developed in their students. Driving values were in the form of religious values and also from local cultural values developed in the school. These values developed from intensive excavation of all schools' components, especially the principals who led the process of developing driving values in school life. These values moved principals, teachers, students and school staff to base themselves and provide the prestige of great schools through academic and non-academic activities, and both intra-curricular and extracurricular.

Multiple-intelligence-based character education models developed in schools included three stages: (1) integration of character education with each subject matter; (2) inbound activities; (3) outbound activities, and (4) habituation. The model can be broadly seen in the following diagram (Figure 1).

Integration of character values in a learning implementation plan

The development of Multiple-intelligence-based character values in subjects was done in

order to give references to schools in implementing it in the classroom through planning contained in the theme or sub-theme of each subject and listed in the Learning Implementation Plan (LIL). The development of the Multiple-Intelligence-based character values was carried out by the following steps: (a) reviewing Basic Competencies (BC) and indicators on the syllabus; (b) determining the value of the Multiple-Intelligence-based character that will be integrated with the BC and indicators; (c) including values of Multiple-Intelligence-based characters in the Learning Implementation Plan; (d) developing a learning process that allows students to internalise values in appropriate behaviour; and (e) providing assistance to students to internalise values in their daily behaviour.

Integration of character values in the learning implementation plan was actualised through the learning process by using contextual learning models such as jigsaw, think pair share, round table and Student Team Achievement Divisions (STAD). Teachers used scientific approaches such as problem-based learning, project-based learning, discovery learning and other approaches to trigger students to carry out learning activities proactively and independently. The development of character values in learning using these various learning models made the learning atmosphere more meaningful and guided students to transform Multiple-Intelligence-based character values in the context of their lives (Figure 2). Evaluation and feedback were also conducted to determine the success achieved in implementing learning that integrates Multiple-Intelligence-based character values.

Inbound activities through the stages of planning, implementation, evaluation and feedback

Inbound was carried out in several types of activities choices such as the form of the game using tools or without tools to test the intelligence and agility of students in solving problems. Inbound activities were carried out through the stages of planning, implementation, evaluation and feedback. Planning inbound activities was done by preparing equipment and conditioning students to be able to follow the overall activities well. Inbound activities were carried out to develop students' ability to apply character values through games or other types of agility performed in the room. Those activities were carried out to fill students' time with things that were useful after participating in learning activities (Figure 3; Figure 4). Inbound activities could be carried out integrally with scouting, Youth Red Cross, Student Activity Unit, environment-based sanitation, and the development of talents and interests. Inbound programs could be implemented in an integrated manner in the classroom learning process such as ice breaking.

Outbound activities for students and teachers

The outbound implementation was designed through scouting, Youth Red Cross, Student Activity Unit, environment-based sanitation, and the development of talents and interests. Each activity had several sub-activities and all of them were designed in a practical manner so that they were easily used as guidelines by the teacher during outbound activities. The character

values developed in each activity varied according to the substance of the activities students followed. The more varied activities that students followed, the more varied the Multiple-Intelligence-based character values that they obtained in each of these activities. The following were pictures of outbound implementation activities for students and teachers when disseminating research results (Figure 5).

Outbound activities for teachers were carried out to introduce procedures for research activities related to the transformation of ethos based on Multiple-Intelligence which were easy and practical (Figure 6). Implanting Multiple-Intelligence-based character values developed through inbound, outbound and integration activities in learning could contribute positively for improving the character quality of students in junior high schools.

Character education through habituation activities

One important aspect that is often not implemented in schools after training/coaching is habituation; even though this activity is very important for strengthening the soft skills (Figure 7). Character education will be effective through habituation; therefore, teachers should strengthen their position as an innovative and creative figure who are guided and imitated by their students. Students were expected to be more active and creative in developing their soft skills (characters) so that they are accustomed to doing and practicing the learning outcomes that they have obtained in the class or during inbound and outbound activities.

First, strengthening the motivation and fighting ability of students through the pronunciation of the motto or yells "*With faith we are strong, with praying we are enthusiastic, hard work we succeed*" delivered at each morning parade and when learning will begin. The meaning of this motto is that with strong faith, without fear we will be serious to carry out various activities for the help of Allah SWT. "*with praying we are enthusiastic*" meaning that the effort we do must be strengthened by prayer. Every human is praying that will lead to high enthusiasm and optimism for success. Finally, "*with hard work we succeed*" is the belief that Allah will only give to someone in accordance with what he is trying earnestly.

Second, habituation related to strengthening aspects of emotional and spiritual intelligence in students through activities of ablution procedures, five daily prayers, *dhuha* prayers independently in school during leisure time without being instructed by the teacher, a culture of sincerity and honesty in giving/charity, and queuing culture as shown in the following picture (Figure 8).



CONCLUSION

The Multiple-Intelligence-based character education management model in the revolutionary era of Industry 4.0 was very effective in improving the quality of character education in schools through inbound and outbound programs and the integration in learning process.

The planning of character education was the first factor that determines the success of this program so that the management of Multiple-Intelligence-based character education was very urgent to be included, implemented and evaluated in the School Work Plans consistently and routinely to ensure the implementation of character education programs optimally. In addition, the commitment and consistency of stakeholders were absolutely realized in helping to instill and familiarize character values based on Multiple-Intelligence in school as culture.

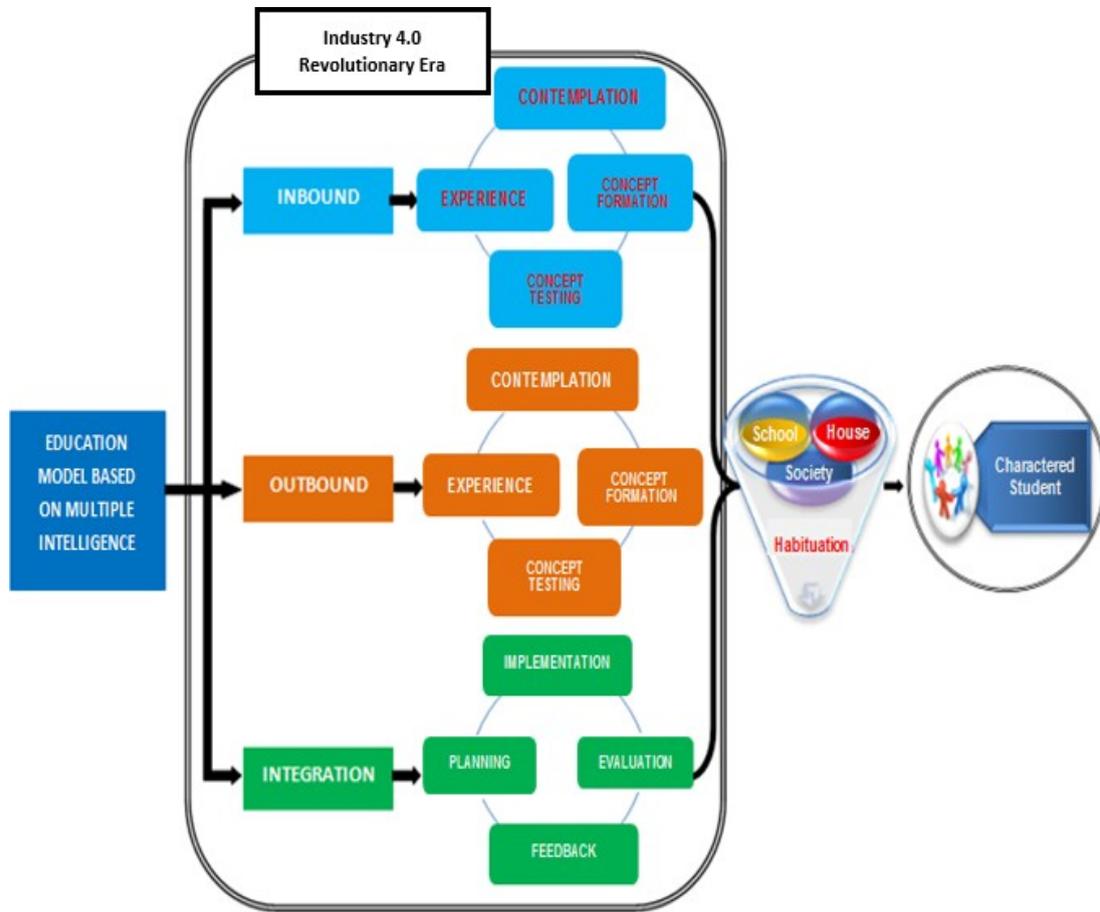


Figure 1. Model of Multiple-Intelligence-based character education management (Masaong et al., 2016; Masaong et al., 2016; Murphy, 1999)



Figure 2. Development of character values in learning process



Figure 3. Testing the intelligence and agility of students in solving problems



Figure 4. Training of inbound activity programs for teachers



Figure 5. Outbound activities for students



Figure 6. Outbound activities for teachers when disseminating research results

The Spiritual Work



Figure 7. Positive habit to strengthen motivation of students



Figure 8. Habituation activities in emotional and spiritual intelligence aspects in schools



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