Model of Strengthening Students' Intelligent Character in Facing Changes in Society in the Industrial Revolution Era

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ABSTRACT

This research aims to analyze the model of strengthening intelligent character for students in facing changes in society in the industrial revolution era. The method used is a mixed methods concurrent embedded, qualitative method informants using purposive sampling are ten people, while quantitative research respondents use simple random sampling totalling 100 respondents. The data collection technique used is the distribution of closed model questionnaires, direct observation, guided interviews and documentation. The findings obtained are that the moral integrative model strengthens the intelligent character of students, namely active students, logical thinking, dynamic, analytical, aspirational, creative, anticipatory, open-minded, progressive thinking and looking for solutions. The next recommendation is to develop a moral integrative model on more specific intelligent characters.

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1. INTRODUCTION

The main problem now is that the world in general and the Indonesian state have entered the era of the digitalization revolution in various aspects of people's lives that have changed the human way from manual to digital (Suwardana, 2018). So that the issue of the digital revolution era is widely discussed in Indonesia (Cholily, Putri, & Kusgiarohmah, 2019). Changes in society in the era of the industrial revolution 4.0 were marked by the development of data literacy or technology and big data, which made humans very dependent on technology. However, many people were not aware of these changes (Rezky et al., 2019), and even some people have entered the era of globalization. Revolution society 5.0 (Sulistiani, 2008).

In the era of the industrial revolution 4.0, humans are faced with technological advances that are so fast and sophisticated that they emphasize the pattern of the digital economy, artificial intelligence, big data, robotics, and so on or known as the phenomenon of disruptive innovation (Kosim, 2020). With
technological sophistication that is very practical, very rational, very empirical, and very material, it makes humans lulled into pleasures that have a negative impact on human personality because they can construct individualism and materialism, thus ignoring aspects of spirituality or aspects of character in student life. Therefore, character strengthening has a role in student life in facing the industrial revolution 4.0.

In the era of the industrial revolution 4.0, the Indonesian state made information technology the basis of life (Ibda, 2020). Changes in the era of the industrial revolution 4.0 not only affect aspects of technology and information but also all aspects of life including in the world of education, so that in the era of the industrial revolution 4.0, strategic maturity and mental strength are needed (Ibda, 2020) which are characters that are indispensable to compete and compete in the world. Global world, to give birth to a generation of people who have intelligent character.

This era is marked by the increasingly central role of cyber technology in human life. So do not be surprised if the term "Education 4.0" appears (Manan, 2019). Education 4.0 is a general term used by education experts to describe various ways to physically and indirectly integrate cyber technology into learning in schools and lectures at universities (Manan, 2019). This has had an impact on people's lives such as (1) the era of disruption 4.0 with the use of technology on a large scale, (2) the existence of new literacy, namely big data literacy, technological literacy and human literacy, (3) an increasingly connected world that is not limited by space, (4) an increasingly competitive world (Sulistiani, 2008), so that every student must be equipped with human resources in facing the era of the digital revolution. Unexpected changes in society will occur in the era of the digital revolution, such as unemployment and competition between humans and machines (Rezky et al., 2019) and various social problems, political stabilization or economic stabilization (Suwardana, 2018), natural damage and the spread of hoax (Prasetyo & Trisyanti, 2018).

The nation's generation can face the era of the digital revolution in education by developing human resources owned by students as the main point in education (Cholily et al., 2019). One of the assets that can be given to students is character because a mental revolution must accompany the era of the digital revolution to advance the nation's generation in global competition (Suwardana, 2018) in other words, character revolution in the form of character strengthening. Strengthening character education must be given to students in facing the era of the digital revolution, namely intelligent characters (Umari & Rosmawati, 2018), to have competitiveness (Setiono, 2019) in the era of the digital revolution. The character education strengthening program is a program that can anticipate changes in society in the era of the digital industrial revolution (Nainggolan, Susanti, & Masri Perangin Angin, 2020).

The main problem is how to strengthen intelligent character education for students in facing changes in society in the industrial revolution era, which can be implemented in the educational process in higher education by building student character based on moral integrative.

Various research results research on models of character strengthening based on moral integrative such as research (Hindun, 2014) on language learning using moral integrative (moral knowing, moral feeling, moral action), research (Fransisca, Fransisca, & Ajsukuromo, 2015) on pedagogic competence, personality competence, social competence and professional competence of teachers using moral integrative (moral knowing, moral feeling, moral action), research (Izzati, Bachri, Sahid, & Indriani, 2019) on male and female characters uses moral integrative (moral knowing, moral feeling, moral action), research (Hasnah Kanji, Nursalam, Nawir, & Suardi, 2019a) on the values of the nation's character in Social Science subjects using moral integrative (moral knowing, moral feeling, moral action), research (Witro, Arista Putri, Azmiya Putri, & Ovieny, 2020) on the relationship of people's roles parents with the formation of children's character using moral integrative (moral knowing, moral feeling, moral action). However, all research results previously showed that the moral integrative model was still at the stage of moral knowing, moral feeling, and moral action, which had not yet reached the moral in verbal, moral habitus and moral culture. Although the social science learning research carried out by researchers in 2019 used a moral integrative in integrating the values of the nation's character in Social Science subjects (Hasnah Kanji et al., 2019a), the moral integrative model was used in this study. Also
still at the stage of moral knowledge, moral feeling and moral action. However, the research results have found new moral integrative models, namely sinverbal morals, moral habitus and moral culture. However, this integrative model is only at the student and school level and has not yet reached students and universities. In addition, in general, all research results only focus on moral knowing, moral feeling and moral action, and no one integrates strengthening of intelligent character education by using integrative moral knowing, moral feeling, moral action (Lickona, 1991), moral sinverbal, moral habitus, and moral culture (Hasnah Kanji et al., 2019a).

Meanwhile, various research results on intelligent character have been conducted by several researchers such as research (Umari & Rosmawati, 2018) on the analysis of intelligent character values for FKIP students, Riau University, Pekanbaru, the application of intelligent character education in group formats to increase the honesty value of Islamic counseling guidance courses (BKI) at State Islamic Institute (IAIN) Kerinci (Sujadi, Alam, & Noviani, 2017), Intelligent character development through English language learning (Kustini, 2016), Student-Intelligent character development through infusion in Learning (Alizamar, 2014), character education intelligent character (Rahmadani & Neviyarni, 2021), comprehensive guidance and counseling based on intelligent character and its application through peer guidance in the era of globalization (Ardimen, 2017), intelligent character development through guidance and counseling for early childhood in Islamic Kindergartens means bhakti (Evitarini, 2019), the design of integrated science teaching materials integrates character values ICT-based intelligent learning for class VIII junior high school students (Asrizal, 2018).

However, all previous research on the intelligent character has not been integrated with integrative moral knowledge, moral feelings, moral actions (Lickona, 1991), sinverbal morals, moral habitus, and moral culture (Hasnah Kanji et al., 2019a) (Nursalam, Nawir, Suardi, & Kanji, 2020) (Suardi, Nursalam, & Kanji, 2020) (Hasnah Kanji, Nursalam, Nawir, & Suardi, 2020) (Hasnah Kanji, Nursalam, Nawir, & Suardi, 2019b) (H Kanji, Nursalam, Nawir, & Suardi, 2019) (R. Nur, Suardi, Nursalam, & Kanji, 2021) (Suardi, Nursalam, & Hasnah, 2021) as models to continue facing the era of globalization, industrial revolution 4.0, even 5.0. This research contributes to strengthening intelligent character through moral knowing, moral feeling, moral action, moral sinverbal, and moral habitus, and moral culture, so that the novelty of this research lies in the integrative aspect of intelligent moral character at the higher education level.

The study results found that there will be 52.6 million jobs that will experience a shift or even disappear altogether (Suwardana, 2018). This is the reason developed countries, through government policies, include the era of the digital revolution as a mandatory plan to increase human competitiveness in the global market (Sulistiani, 2008), so that the existence of students in global competition if they have the advantage of intelligent character. In addition, universities must be involved in helping the community, especially students, in dealing with the rapid development of digital innovation (Suryani, 2018), strengthening character so that science is not value-free (Anwar, Saregar, Hasanah, & Widayanti, 2018). The role of universities must be carried out so that students can do so by producing graduates who have high competitiveness in facing the era of the industrial revolution 4.0 (Harto, 2018) and acceleration in facing changes in society in the era of the industrial revolution 4.0 (Suryani, 2018). So that society can prosper in the era of the digital industrial revolution because it is supported by quality human resources (Suwardana, 2018) who have intelligent characters (Umari & Rosmawati, 2018) to be competitive in the era of the digital revolution (Setiono, 2019).

The integrative model of character education strengthening that can be developed in academic activities at universities at Muhammadiyah Makassar University is the moral integrative (moral knowing, moral feeling, moral sinverbal, moral action, moral habitus and moral culture) namely strengthening character education not only by individuals but also by individuals. Collectively by all the academics of the University of Muhammadiyah Makassar, students have a positive character that is intelligent (A. H. Nur, Sopandi, & Mustapha, 2019). In the Research Master Plan for 2016 Universitas Muhammadiyah Makassar, there are eight leading research areas of Universitas Muhammadiyah Makassar in 2016-2020, one of which is research and development of human, educational and religious
resources (HR-KK), including the development of educational models starting at the elementary level to tertiary institutions. Tall. So that the strengthening of intelligent character education for students in facing the era of the digital industrial revolution is an important part of the Research Master Plan of the University of Muhammadiyah Makassar in 2016-2020.

2. METHODS

This research used mixed research methods (mixed methods). The mixed-methods concurrent embedded model in the first stage used qualitative research methods, and the second stage used quantitative research methods simultaneously or together but with different weights. The research place or research location was on the Makassar Muhammadiyah University Campus. The qualitative method instrument used the researcher as the main instrument using observation guidelines, interview guidelines, and documentation (Manab, 2015). In contrast, the quantitative method used a google form questionnaire. Informants of qualitative research methods used purposive sampling, which amounted to 10 consisting of leaders, lecturers and students. In contrast, respondents in quantitative research methods using simple random sampling techniques amounted to 100 respondents. The data collection technique used was the distribution of closed model questionnaires, direct observation, guided interviews and documentation (Manab, 2015). Qualitative data analysis was carried out through the stages of data reduction, data display and conclusion drawing, while quantitative data analysis used questionnaire verification, tabulation of questionnaire data and percentage of questionnaire data. The validity of qualitative data used source triangulation and method triangulation (Manab, 2015), while quantitative data used reliability tests (accuracy) and validation tests (Hermawan, 2019).

3. FINDINGS AND DISCUSSION

Strengthening intelligent character (active, logical thinking, dynamic, analytical, aspirational, creative, anticipatory, open-minded, progressive thinking, looking for solutions) for students in facing societal changes in the era of digital revolution based on integrative morals at Muhammadiyah University of Makassar on aspects of moral knowledge from 100 student respondents are:

![Figure 1. Intelligent character on moral knowing](image-url)

Based on Figure 1 the strengthening of intelligent character from 10 indicators of intelligent character on moral knowing has been carried out at all levels, especially on the moral awareness of intelligent characters but has not been maximized in the aspect of personal knowledge of intelligent characters. Strengthening intelligent character (active, logical thinking, dynamic, analytical, aspirational,
creative, anticipatory, open-minded, progressive thinking, looking for solutions) for students in dealing with societal changes in the era of digital revolution based on integrative morals at Muhammadiyah University Makassar in the aspect of moral feelings from 100 student respondents are:

![Moral feeling](image1)

**Figure 2. Intelligent character on moral feeling**

Based on Figure 2 the strengthening of intelligent character from 10 indicators of intelligent character on moral feeling has been carried out at all levels, especially on conscience, self-esteem and loving good things related to intelligent characters but not maximal in aspects of self-control of intelligent characters. Strengthening intelligent character (active, logical thinking, dynamic, analytical, aspirational, creative, anticipatory, open-minded, progressive thinking, looking for solutions) for students in facing societal changes in the era of the digital revolution based on integrative morals at Muhammadiyah University of Makassar in the aspect of using words and the moral symbols of 100 student respondents are:

![Moral sinverbal](image2)

**Figure 3. Intelligent characters on moral sinverbal**

Based on Figure 3, the strengthening of intelligent characters from 10 indicators of intelligent characters on moral sinverbal has been carried out at all levels, especially at the intelligent character selection stage, but has not been maximized in the aspect of intelligent character revision. Strengthening intelligent character (active, logical thinking, dynamic, analytical, aspirational, creative, anticipatory, open-minded, progressive thinking, looking for solutions) for students in dealing with societal changes
in the era of the digital revolution based on integrative morals at the University of Muhammadiyah Makassar in the aspect of moral action from 100 student respondents are:

**Figure 4. Intelligent characters in moral action**

Based on Figure 4 the strengthening of intelligent characters from 10 indicators of intelligent characters in moral action has been carried out at all levels, especially on the desire to have intelligent characters but not maximal in intelligent character competencies. Strengthening intelligent character (active, logical thinking, dynamic, analytical, aspirational, creative, anticipatory, open-minded, progressive thinking, looking for solutions) for students in dealing with societal changes in the era of digital revolution based on integrative morals at the University of Muhammadiyah Makassar on aspects of moral habits from 100 student respondents are:

**Figure 5. Intelligent character in moral habitus**

Based on Figure 5, the strengthening of intelligent character from 10 indicators of intelligent character in moral habitus has been carried out at all levels, especially in the acceptance of intelligent characters but has not been maximized in the collective habitus aspect of intelligent characters. Strengthening intelligent character (active, logical thinking, dynamic, analytical, aspirational, creative, anticipatory, open-minded, progressive thinking, looking for solutions) for students in dealing with societal changes in the era of digital revolution based on integrative morals at Muhammadiyah University of Makassar on aspects of moral culture from 100 student respondents are:
Based on Figure 6, the strengthening of intelligent character from 10 indicators of intelligent character in moral culture has been carried out at all levels but has not been maximized in the aspect of the cultural moral system of intelligent character.

Strengthening intelligent character for students in dealing with changes in society in the digital revolution era which is carried out through moral integration in six moral levels, namely knowledge, feelings, words and symbols, actions, habits and culture on 10 indicators of intelligent character in Muhammadiyah Makassar university students, namely active, logical thinking, dynamic, analytical, aspirational, creative, anticipatory, open-minded, progressive thinking and looking for solutions (Prayitno & Afriva, 2010) conducted at the Muhammadiyah University of Makassar through:

1. Students are active in various academic, co-academic, extra-academic, and non-academic activities, such as active students in online lecture activities at Spada Unismuh, zoom, google meetings, Google Classroom, and social media groups such as Whatsapp (academic), active learning in field observation activities and project activities in the field (co-academic), active in activities such as HW UKM, Tapak Suci UKM, LKIM Pena UKM, Talas Arts and Culture UKM, Funnel UKM, PMI KSR UKM, Sports UKM, UKM Pahala, UKM PS UNISIMUH and UKM Language (extra-academic), and students are active in environmental and social activities (non-academic).

2. Students think logically in solving various problems they face, such as problems related to communication with lecturers via Whatsapp, problems existing in social media and internet access problems in finding various references needed in lectures, compiling papers, compiling proposals and compiling essays.

3. Students are dynamic towards all forms of change that lead to better changes, such as the use of Spada Unismuh, zoom, google meetings, Google Classroom, and social media groups such as Whatsapp in lectures as a substitute for face-to-face lectures and the use of blogs, youtube, Facebook, Google Scholar and Google Books as new learning resources for students.

4. Students are analytical about various individual and social problems that are viewed objectively or the reality that occurs, such as being selective in receiving information in electronic media and social media.

5. Students are aspirational in providing input to people in their social environment, such as providing input on various issues related to social life and education in writing on social media.

6. Students are creative in finding or creating new things and innovating existing findings, such as students innovating online learning through various online applications that facilitate learning in Internship 3 and Teacher Professional Consolidation (P2K) activities. And discovering new things in research as outlined in scientific works (thesis).
7. Students are anticipating seeing something that is or will happen, such as socializing health protocols to avoid Covid-19 through social media.
8. Students are open-minded in seeing social changes, such as students accepting changes in the use of Spada Unismuh, zoom, google meetings, Google Classroom, and social media groups such as Whatsapp in lectures as a necessity.
9. Students think progressively about seeing social change, such as students wanting to become online entrepreneurs by using social media, which is considered promising in the era of the digital revolution.
10. Students look for solutions to various individual and social problems faced in everyday life, such as students solving online lecture problems, accessing online references, online tutoring, online lectures, and online exams.

The integration of intelligent character with moral integrative through six capital levels has brought students knowledge, feelings, use of words and symbols, actions, habits, and culture. However, from every aspect at the moral level, it is still not maximized, as at the level of moral knowledge, it is still necessary to maximize personal knowledge. At the level of moral feeling, still need to maximize self-control. At the level of sinverbal need to maximize the revision aspect, at the level of moral action, need to maximize competence, and at the level of moral habitus, still need to improve collective habitus. Integrative morals at each level have a relationship with one another such as knowledge and feelings that must be seen at the implementation stage (Hindun, 2014), the educational process by teachers and lecturers if it is not based on the linkage of each component, the teacher and lecturer will be less precise in teaching character (Fransisca et al., 2015), so it is important to integrate all aspects such as moral knowing, feeling and action (Izzati et al., 2019). Moral integration can be done at the elementary school level (Kanji et al., 2019a), morals are integrated into each subject (Hasnah Kanji et al., 2019a), morals are integrated into each subject (Hasnah Kanji et al., 2019b), and integrated at the tertiary level (Nursalam et al., 2020) (Suardi et al., 2020) (Hasnah Kanji et al., 2020), even in informal or family education (Witro et al., 2020). Characters that can be integrated are intelligent in educational activities at the University of Muhammadiyah Makassar. Although the results obtained have not been maximized, because the indicators of intelligent character have not yet reached the culture of intelligent character as the highest level in moral integrative, of the 10 indicators of intelligent character, namely active, logical thinking, dynamic, analytical, aspirational, creative, anticipatory, thinking open, progressive thinking and looking for solutions. In contrast to research (Umari & Rosmawati, 2018) which examines intelligent characters in aspects of faith and piety, honest, intelligent, tough and caring, intelligent characters in aspects of honesty (Sujadi et al., 2017), intelligent characters in aspects of accepted by students or children (Kustini, 2016), the intelligent character in the aspect of anticipating challenges (Alizamhar, 2014), the intelligent character in the aspect of learning and fostering social relationships (Ardimen, 2017), the intelligent character in the aspect of discipline, honesty, mutual help, mutual respect, self-confidence and love for Allah (Evitarini, 2019).

Intelligent character is very important for students to face an all-digital life (Suwardana, 2018) that occurs in Indonesia, more specifically at the Muhammadiyah University of Makassar (Cholily et al., 2019), which currently makes information technology the basis of life (Ibda, 2020) in carrying out the lecture process (Manan, 2019), as a provision to face an increasingly competitive world (Sulistian, 2008) after students finish taking the lectures level, so they can compete not only with other students but also with machines (Rezky et al., 2019) in global competition (Suwardana, 2018) through their intelligent character (Umari & Rosmawati, 2018), through their intelligent character, students have competitiveness. They can anticipate changes in the world of education (Nainggolan et al., 2020). However, there are still students who have not realized this (Rezky et al., 2019), the lives of students who have entered the 4.0 revolution era, and even society 5.0 (Sulistian, 2008). But in general, students already have an integrative moral, intelligent character as a provision in dealing with societal changes in the era of the industrial revolution 4.0 and even 5.0.
4. CONCLUSION

The moral integrative model through six interrelated moral levels, namely moral knowing, moral feeling, moral sinverbal, moral action, moral habitus, and moral culture, has provided a strengthening of the intelligent character of students, namely active students, logical thinking, dynamic, analytical, aspirational, creative, anticipatory, open-minded, progressive thinking and looking for solutions in the face of societal changes in the industrial revolution 4.0 and even 5.0. The next recommendation is to develop a moral integrative model on the intelligent character that is more specific than intelligent character indicators. The drawback of this research is that it examines many indicators of intelligent character, so the results are not specific.

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