IMPLEMENTATION OF CHARACTER-BASED LEARNING QUALITY IMPROVEMENT WITH ISLAMIC FULL DAY SCHOOL SYSTEM IN THE ERA OF INDUSTRIAL REVOLUTION 4.0

Prim Masrokan Mutohar
IAIN Tulungagung, Indonesia, Email; pmutohar@gmail.com
Hikmah Eva Trisnanti
STKIP PGRI Tulungagung, Indonesia, Email; hikmahheva@gmail.com

HIGHLIGHT

- The full-day school system habituate students in applying character values under the guidance, supervision of teachers and environment.

ABSTRACT

This study aims to describe the implementation of improving character-based learning quality with the full day school system in the era of industrial revolution 4.0 held in elementary schools. Quality learning is the key to the success of schools in creating effective schools, high quality, and demanded by the community. The results of the study indicate that learning is carried out by using government curriculum integration with the school curriculum sourced from the teachings of Islam. Active learning is carried out in shaping the knowledge and skills needed by students in the industrial revolution era 4.0, planting morality, implementing character values that are the core values of the school, and forming Islamic culture. This is done so that students have personal and social skills in preparing quality human resources in the future. Learning quality is improved continuously so that students have the competence and character that are by the quality standards set by the school.

Keyword :   ***Quality of Learning, Character, Full-Day School***

| 151

A. INTRODUCTION

The development of knowledge and technology is increasingly fast at this time, and each country responds positively to be able to compete with developed countries in the world. The existence of the industrial revolution 4.0 was first introduced at an industry exhibition in the German city of Hannover in 2011, which was marked by advances in computer technology and robots (Durmus and Dağlı, 2017: 1). Advances in technology in the Industry 4.0 era are directed to (a) data storage, computing, and information connectivity systems; (b) the existence of analysis, ability, and business intelligence; (c) the existence of an interaction system developed between humans and technology; and (d) there is an improvement in the transfer of information digitally into the real world, as is done in robotics and 3D printing (Lee et al, 2013).

Along with the response of each country, including the Indonesian government, it is welcoming the existence of the industrial revolution 4.0. Industry 4.0 challenges and opportunities encourage innovation and the creation of educational institutions. These challenges and opportunities according to Yahya (2018: 12) must have a revitalization of the learning system related to (a) the development of school curricula and character education systems, (b) learning materials developed with information and communication technology systems, (c) adjustments to the development of science, (d) entrepreneurial skills, and (e) learning evaluation systems. This is very important to be developed in improving the quality of learning in schools in the era of industrial revolution 4.0. Educational institutions as agents of change in the face of the development of science and technology must be able to improve the quality of good learning on an ongoing basis so that it becomes a superior school and is in demand by the community.

Improving the quality of learning becomes very relevant to government policies about the literacy movement that must be owned by Indonesian students and society. This literacy movement is closely related to the ability that must be possessed by students to love reading both from sources of books, research results, scientific articles, and science that can be obtained from information technology. Aoun (2017) explained that literacy activities could be carried out digitally or by utilizing technology and human literacy. This literacy activity aims to have students the ability to read, analyze, and use information as a proper science obtained by literature books, digital or technology, and communication with teachers as experts in the field under study. This capability is a skill that is urgently needed in the industrial era 4.0 in utilizing various learning resources to improve student competence. Globalization and the industrial revolution 4.0 that have occurred at this time have ushered in the world community to exchange information and civilization, both positive and negative.

The flow of information is growing fast, so are the cultural values of a nation also easily eroded along with the development of the world's information flow. This kind of condition is a challenge for educational institutions to prepare generations who can maintain the nation's cultural values and religious values that can shape the character of students. The world community needs character, to be able to take advantage of the development of science and technology for welfare and uphold the values of human civilization as human beings in managing the earth and all its contents.

Education has a function to prepare qualified human resources to be able to develop world civilization based on excellent and religious values. For this hope to be achieved, it is necessary to improve the quality of character-based learning that starts from primary education to be able to lay the necessary foundation in preparing qualified human resources and character in the future. Character learning must be carried out in schools as a form of curriculum that is developed integratively in the entire learning process at school. In connection with the implementation of improving the quality of learning in schools, the role of principals as managers is needed to mobilize all teachers in carrying out their duties and responsibilities properly. Terry (1986) explains that actuating is a business endeavor pursued by leaders in mobilizing personnel so they can strive to achieve their intended goals.

The quality of learning is a condition of the learning process that must be created by the teacher so that students' learning achievements can be created well. Teachers, as educators, must be able to master professional and pedagogical competencies to be able to carry out quality learning processes. Quality learning processes will be achieved well if students have high achievements and are satisfied with the learning process carried out by the teacher in the school. Improving the quality of learning has components that must be considered by the teacher, namely: suitability, learning, effectiveness, efficiency, and productivity (Mulyono, 2009: 29). Increasing the quality of character-based learning will involve more sociocultural interactions in schools. The sociocultural approach, in general, emphasizes the interdependence between individuals in the school in constructing science (Wertsch, 1998; Valsiner and Van der Veer 2000). Interaction between students in group learning can help students get better and productive knowledge (Damşa, 2014: 247). The teacher's communication with students and the learning environment can also determine the success of students in implementing learning in the classroom (Winch-Dummett, 2006).

This research is fundamental to be carried out to assess the improvement of the quality of character learning with the full-day school system. This education system is an alternative in the management of educational institutions in Indonesia in response to the demands and needs of the

| 153

Implementation of Character Based Learning Quality Improvement with Islamic Full Day School …

community for the quality of education and character of students. Studies on the quality of education have been carried out by experts, both in terms of education management and in learning (Deal and Peterson, 1990). This study is more emphasized on the efforts carried out by the school in improving the quality of learning based on the planting of character values that must be mastered by students in the overall learning in schools with the full-day school system.

Revolusi Industry 4.0

The era of the Industry 4.0 revolution is an era of technological progress that can be used in various aspects of life in all parts of the world. Information technology can be maximally utilized in increasing the productivity of organizational performance. Organizations engaged in the field of profit and non-profit take advantage of technological advancements in improving service quality and product quality in their business fields. This development requires educational institutions to be adaptive in preparing quality human resources to be able to participate in the development of science and technology (Angelianawati, 2018; Marlina & Jayanti, 2019; Ristekdikti, 2018). Educational institutions, as a system, need to revitalize education in the learning system in order to be able to create novelty to respond to the industrial era 4.0. (Aryati, 2019; Campus, 2018; Syamsuar, 2019).

The implementation of learning can also be developed by utilizing technology as a medium for student learning. Learning is developed with digital media to present concrete examples in implementing active learning in the classroom (Abdollah, Ahmad, & Akhir, 2010; Farida Hasan Rahmaibu, 2017; Marlina & Jayanti, 2019). The development of this technology also brings benefits in improving the quality of learning in schools. The teacher must be creative and be able to develop learning strategies that can enhance students' creative abilities. Student creativity is needed in shaping the competencies and skills that must be possessed in the era of the industrial revolution 4.0 that is happening at the moment.

Islamic Full-Day School

Islamic Full-Day School is a model of education and learning carried out throughout the day to achieve national education goals and shape the national character of students to be able to be creative, competitive, ethical, moral, and polite students in interacting with the environment and society. The majority of full-day schools in Indonesia are carried out by Islamic educational institutions in order to realize: (1) Education that is able to respond to the development of science and technology, (2) quality Islamic education, (3) personality education that is anticipatory to social and cultural development in the era of globalization, (4) facilitating the potential of students

| 154

Implementation of Character Based Learning Quality Improvement with Islamic Full Day School …

with extra-curricular activities, (5) paying attention to the development of students' talents, interests and intelligence early on, (6) can reduce the negative influence of student activities outside of school, (7) students get lessons and guidance Practical worship correctly, such as daily prayers, prayer, and learning the Qur'an (Sujianto, 2005).

Education and learning that uses the full-day school system have advantages, including: (1) the full-day school system makes it possible to achieve full education. Benyamin S. Blom stated that the goals or objectives of the administration of education are directed to shape the competencies of students, which include the fields of cognitive, affective, and psychomotor. These three fields will be applied well in the administration of education that uses the full-day school system. This system requires students to be at school longer so that the strengthening of education is not only on the cognitive aspects but on the affective aspects of students can also be well developed, as well as on the psychomotor aspects, (2) Full day school systems are more likely to realize intensification and the effectiveness of the education process. Full-day school is possible for the intensification of the educational process in the sense that students will be more easily directed and formed according to the mission and orientation of educational institutions because the activities of students in the whole learning process are more comfortable to monitor because they are in school longer, (3) the system full-day school is an institution that has proven effective in increasing the ability of students in all respects, such as the application of Islamic Religious Education which includes all areas of cognitive, affective and psychomotor and also foreign language skills that need to be mastered by students (Hasan, 2006: 114- 115).

Schools with a full day school system are explained from the results of Setiyarini, Joyoatmojo, and Sunardi's research (2014) that schools can implement a fun & full-day school learning system, which is a link between elements in learning such as the learning environment, methods, strategies, technology, and the media for learning to take place that emphasizes active learning, creative learning, practical learning, and fun learning in achieving predetermined educational and learning goals. Such conditions in the implementation of learning with a full day school system can provide convenience in shaping and fostering the character of students. This is because the full-day school system applies a basic concept of "Integrated-Activity" and "Integrated-Curriculum."

The purpose of organizing education with the full-day school system based on the research results of Tran Thi Bich Lieu (2014: 20) explained that: (1) can improve the quality of student performance, (2) help schools to improve the quality of education and learning, (3) can help achieve learning goals , (4) good school leadership and teacher qualifications can be applied, a variety of extracurricular activities, school autonomy, parent and community involvement, and

| 155

support, (5) support to help improve school facilities, the environment and school leadership capacity which makes full-day school implementation more profitable for schools to improve student learning achievement, (6) can expand and develop curriculum content, adopt a flexible approach, and use a broader range of teaching and learning methodologies with the full-day school system.

Student Character

Character education is an effort carried out in a planned manner to make students able to recognize, choose, and internalize ethical values that originate from religion, national philosophy, law, and norms that apply in public life so that students are able to behave as human beings (Trisnantari, Mutohar, and Subiyantoro, 2015: 18). Student characters are closely related to a series of attitudes, behaviors, motivations, and skills possessed by students (Musfiroh, 2008).

Psychological and socio-cultural character formation is a function of all the potential possessed by students related to cognitive, affective, and psychomotor aspects. This aspect must be developed in the context of social and cultural interactions within the family, school, and community that lasts for life (Ministry of National Education, 2010). These character education configurations can be grouped into spiritual and emotional development, intellectual development, sports, and kinesthetic development, and active and creativity development, so that they can be described as follows:

	LOGIC	ATTITUDE
INTRAPERSONAL	MIND FATHONAH THINKER IQ (Visionary, Smart, Creative, Open)	BE CAREFUL SIDIQ BELIEVER SQ (Honest, sincere, religious, fair)
INTERPERSONAL	SPORTS AMANAH (SAFE) DOER AQ (Persistent, Hard Work, Discipline, Clean, Responsible)	SPORTS/INTENTION TABLIGH NETWORKER EQ (Caring, Democratic, Mutual Assistance, likes to help)

Figure 1.
Character Configuration in the Context of the Totality of Psychological and Socio-Cultural Processes

Learning Quality

Learning is a process of interaction between teacher and student, students and teachers, and students and students in a teaching and learning activity. In this interaction process, the teacher has a role as an educator and guide students, facilitators, motivators, and class leaders who help students in achieving learning goals (Trisnantari, Mutohar, and Subiyantoro, 2015: 41). Improving the quality of learning requires professional teachers and has a high commitment to improving the quality of learning (Ali, 2013). Teachers must be able to plan, manage, implement, control, evaluate, and make continuous improvements in improving the quality of national character-based learning (Abidin, 2014; Sutyitno, 2012; Syamsuar, 2019). Success in the learning process is the fulfillment of competency standards that have been set, and students have the skills in accordance with the expected competencies.

There are several things that need to be considered in improving the quality of learning that can be given an explanation as follows: (a) there is a planning process to improve the quality of learning. Planning for improving the quality of learning is based on efforts to achieve learning objectives effectively and efficiently (Triyono, 2015) so that students have competencies in accordance with quality standards of learning, (b) there is organizing learning materials so that teachers are more comfortable to carry out the learning process (Choppin, 1997; Mohr & Dichter, 2001; Wenger, 2000) which can be understood by students well, (c) there is a learning implementation process which is the core of improving the quality of learning. Planning and organizing learning materials that have been made by teachers must be carried out professionally (Abdillah Dalimunthe, 2016; Bentri et al., 2014; Subadi, Priyono, Dahroni, & Musyiyam, 2015) and must be supported by the selection of appropriate learning strategies and media according to with the characteristics of the learning material that will be delivered and also in accordance with the situations and conditions in the learning process that takes place in the classroom (Abdollah et al., 2010; Pakhrurrozi, Sujadi, & Pramudya, 2017), (d) there is an appropriate learning strategy and is in accordance with characteristics of learning materials, conditions of students, and objectives to be achieved (Abdillah Dalimunthe, 2016; Bentri et al., 2014; Subadi et al., 2015), and teacher mastery of the strategies to be used, (e) there is a reasonable control of the learning process (Holden, Saito, & Komura, 2016; Peng, Abbeel, Levine, & Van De Panne, 2018), due to individual differences that exist in themselves students in learning. This difference is related to differences in intelligence, willingness, motivation, courage, independence, emotional, empathy, discipline, and so on that are owned by students. This condition requires the ability of teachers to be able to control the learning process so that it can run well and can achieve goals effectively and efficiently, (f) there is an assessment that can be used as a guide for teachers to know the competencies that are

already owned by students (Hillman & Marshall, 2009 ; Rossi & Mustaro, 2013; Sangsawang, 2015). Assessment can be used as a basis for making improvements in implementing the learning process in the classroom so that goals can be achieved effectively and efficiently, (g) there is continuous improvement of learning (Anjarwati, Winarno, & Churiyah, 2016; Dorovolomo, Phan, & Maebuta, 2010; Kolb & Kolb, 2005; Learning, 2010). Improvement of the learning process must be carried out continuously in every learning held by the teacher. There is no word stop for a process, and there is no final word for improvement; there is a process towards change, and continuous improvement in every learning process carried out by the teacher.

B. METHOD

This study aims to construct an inductive theory from data abstractions about the implementation of improving character-based learning quality with the full-day school system in SD Al-Gontori and Al-Azhar Tulungagung. To achieve these objectives, a qualitative approach was used with a multi-site study design, which was then continued using constant comparative methods (Bogdan & Biklen, 1998). The constant comparative method is a series of steps that take place at once, and the analysis always turns back to data collection and coding with the following research steps: (a) data collection, (b) looking for critical issues, recurring events and categories focus, (c) collect data relating to events about focus categories to see the diversity of dimensions in the category, (d) write down the categories being investigated with the aim of providing and explaining existing events while continuing to look for new events in the location research, (e) working on data and generating models to find basic social processes and relationships, (f) coding data and writing as analysis focusing on core categories (Glaser in Bogdan & Biklen, 1998).

This research approach is used to find: (1) the reality that exists in the implementation of improving character-based learning quality with the full-day school system, (2) the relationship between researchers and the subject under study is more sensitive so that a deep understanding of the object under study can be easily carried out. (3) qualitative research is more concerned with the process than the results, (4) a qualitative study of a natural, descriptive, inductive, and sought to find the meaning of a phenomenon that occurs (Patton, 1980: 87).

Data is extracted based on situations and conditions that occur in the research location with the interview, observation, and documentation study techniques. The data sources and informants in this study were principals, teachers, staff, and students. To obtain data that has credibility, the researcher uses a form of internal sampling. Internal sampling is a decision taken by the researcher regarding what data is needed, from the data can be obtained, by making choices on the basis of the

data quality was produced and significant who have a lot of experience in the background studied, or have a deep understanding of what happens using snowball sampling techniques (Bogdan & Biklen, 1982). This is done by the researcher contacting the principal at each site and then asking about various problems that are by the focus of the research, after which the researcher asks to show who can help to provide information by the focus of the research. Next, the researcher asks to show who can help to provide other supporting information, and so on, the steps were taken by the researcher to obtain accurate and credible data so that truth and authenticity can be justified.

To obtain data holistically and integratively, and pay attention to the relevance of the data with focus and purpose, the data collection in this study is used in the technique: (1) in-depth interviews, (2) participant observation, (3) study of documents. The three techniques are essential in qualitative research agreed upon by most experts (Bogdan&Biklen, 1982; Nasution, 1988; Sonhadji in Arifin, 1994). Data analysis in this study can be done with three activity lines, namely: (1) data reduction, is a form of analysis that sharpens, classifies, discards unnecessary, and organizes data to obtain conclusions and verification. Data reduction is carried out continuously during the research, (2) presenting data (display data), presenting data intended to find patterns that are meaningful and provide the possibility of drawing conclusions and taking actions, (3) drawing conclusions or verification (Miles &Huberman, 1992).

C. RESULT AND DISCUSSION

Improving the quality of character-based learning in elementary schools is held to instill character values used as a foundation in shaping the personality of students. The success of students in following the process of education and learning in elementary schools will affect their success in subsequent education. Education in elementary schools must get more attention so that students can grow and develop well and quality. This can be realized by efforts to improve the quality of learning in elementary schools, which are based on the commitment of principals, teachers, and education staff.

The formation of students' character is a shared responsibility between parents, teachers, and the community. Teachers, as educators in the education sector, have a very strategic role in realizing character students. Efforts carried out by teachers in schools will not be meaningful if parents do not provide full support and familiarize students with the values that have been taught in school. Likewise, the role of the surrounding community is also very much needed to provide control and examples of ethical behavior to students.

Based on the data analysis in this study can be given an explanation of research findings in the form of images as follows:
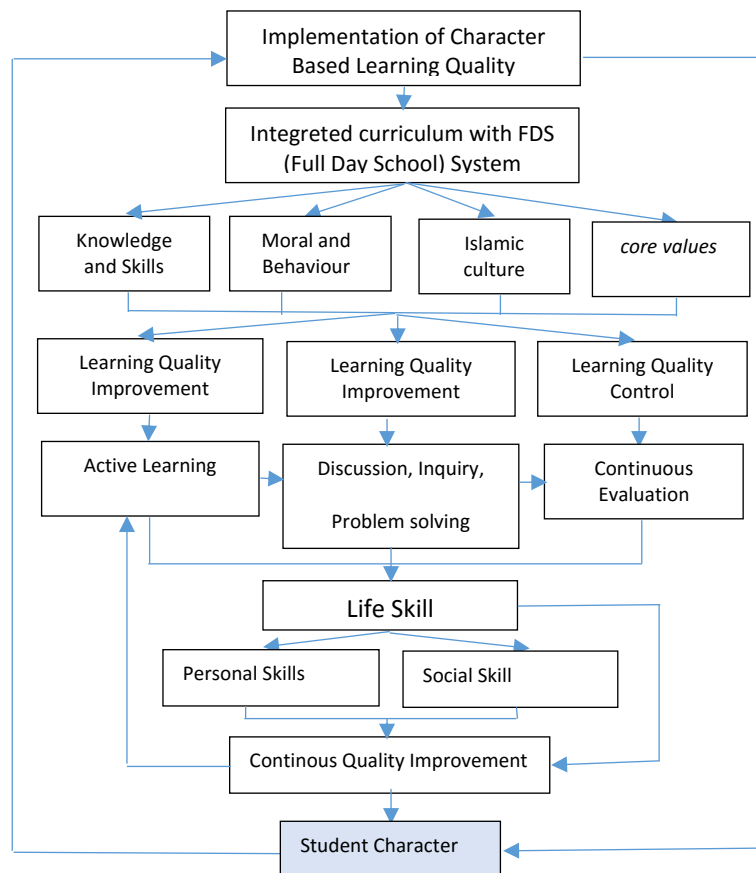

Figure 2.

Implementation of Character-Based Learning Quality Improvement with the full-day school System

The implementation of quality improvement of character-based learning at Al-Gontori Islamic Elementary School and Al-Azhar Tulungagung Islamic Elementary School was carried out with a full-day school system designed based on integrated curriculum development. The development of this curriculum is based on (1) the implementation of the national curriculum integrated with the school curriculum, (2) the implementation of superior programs related to the general character and daily character and science and technology, (3) the implementation of extracurricular activities to strengthen students' character. This curriculum integration aims to provide students with provisions on (1) science and technology, (2) planting morality, (3) the formation of Islamic culture, and (4) strengthening the core value of the school. This is carried out in all education and learning activities in schools with the full-day school system. Improving the

quality of learning is carried out with full commitment so that students can master science and can implement character values taught in school.

The implementation of learning is directed at equipping students to have knowledge and skills that become quality standards, implementing character values that become core values in schools, planting morality, and shaping Islamic culture in overall learning in schools with the full-day school system. Learning is carried out with an active learning approach, so students have personal and social skills. Personal skills are closely related to the abilities that must be possessed by students in mastering science and skills and memorizing letters in the Qur'an that are part of the school curriculum. Social skills are closely related to the ability of students to carry out character values in social life in schools and people's lives. Implementation of these character values uses the religious approach taught in Islam. Ethical approach as a foundation that must be owned by students to be able to run the teachings of Islam properly and correctly.

The active learning approach is intended so that students can play an active role in the overall learning that is in school so that they have a direct learning experience in mastering science and cultural values taught in school. Research that is closely related to this approach has been carried out by many experts, including Jeong, JS, González-Gómez, D., Cañada-Cañada, F., Gallego-Picó, A., & Bravo, JC, (2019: 2017) which explains that the application of active learning can improve self-efficacy and student learning outcomes. This learning can bring students closer to the professional world, which demands the acquisition of cognitive and metacognitive skills (Bahri & Corebima, 2015). When students engage in ongoing and authentic assignments, students can be directly involved in planning, implementing, and evaluating their learning at school. This learning is proven to increase students 'success in solving problems and is directly involved in finding solutions based on students' critical thoughts (Sinatra & Taasoobshirazi, 2011). Active learning is a strategy that can be used in the form of training to provide students with competency. Students are trained to be able to integrate the conceptual knowledge they have with the assignments given, so they can reflect on their experiences and practices directly in learning at school. This is an integral part of student learning experience to apply active cognitive processes in gaining new knowledge and learning experiences (Weinstein et al., 2011). This factor influences designing learning activities and evaluating student learning success (Flores & Gómez, 2017).

Active learning is carried out both in the classroom and outside the classroom. Learning outside the classroom will involve students in being able to practice significantly the knowledge and skills they have. This real learning is useful for students to gain knowledge and understand the application of theory to real situations (Kandamby, 2018: 408). Character values are used to be carried out by students, both in school and in people's lives. This is an effort so that students have

| 161

real knowledge and experience that is very useful for subsequent developments. The learning experience needed by students is knowledge and experience that supports the development of concepts of deep understanding and is accompanied by general principles, skills development, both technical and professional, and the application of knowledge and skills in solving problems (Litzinger, Lattuca, Hadgraft, & Newstetter, 2011) Learning experiences outside the classroom can help develop students' inquiry skills through actual events in a shared learning environment with peers (Ryokai, Agogino&Oehlberg, 2012).

The selection and application of learning strategies have an essential role in the learning process so that students have knowledge and skills (Weinstein, Acee& Jung, 2011). Learning in schools is also directed so that students can apply ethical values and self-motivation in life so that learning in schools is also associated with self-regulation, learning, motivation, and emotions (Abar & Loken, 2010). Active learning is needed so that students are actively involved in the learning process so that they can get the excellent academic achievement. Several studies have shown the effectiveness of active learning, as explained by Prince (2004), that active learning can be used in authentic tasks such as scientific inquiry and other critical thinking activities to carry out independent and collaborative learning in studying science. Likewise, the results of Valdez and Bungihan's research (2019: 282) show that the learning approach to solving problems is proven to be more effective than learning that does not require students to be active. This learning activity requires the process of planning, implementing, reflecting, evaluating, and revising cognitive, motivational, metacognitive strategies based on the results already achieved (Sinatra & Taasoobshirazi, 2011).

Improving the quality of character-based learning is very important to be held in every school. To improve the quality of this learning, there must be a high commitment from the principal and the teacher. Commitment is a very decisive factor in improving the quality of learning (Awang, H., Aji, ZM, Yaakob, MFM, Osman, WRS, Mukminin, A., &Habibi, A. (2018: 439). The teacher is the spearhead in implementing the learning process in school. The success of students is the success of the teacher, as well as the success of the teacher, which is the success of students. The teacher has a strategic role in carrying out active learning. The teacher can help students provide new information in the learning process, and students can connect new information with the knowledge they have through memory to get new knowledge in learning (Eady & Lockyer, 2013; Kandamby, 2017). This kind of condition will be achieved well if there is a strong commitment to improving the quality of learning in school.

Improving the quality of learning is closely related to the efforts made by teachers in creating a learning environment in schools. An active learning environment influences communication learning and character formation of students. Gallien& Jackson (2006: 133) explained that character education is a dynamic interaction between internal factors and external influences so that positive growth occurs in students. The character of students can be shaped by a social environment that is beyond the reach of the education system (Romanowski, 2005). These findings indicate that external environmental factors influence the character formation of students in school. The growth of science and technology that occurs at this time, which is often referred to as the industrial revolution 4.0, also has a significant influence in shaping the character of students in school.

The content of learning must always adjust to changes that occur in the industrial era 4.0. Improving the quality of learning can fulfill 21st century skills (21st century skills), namely: (1) learning innovation and skills related to creativity, critical thinking, problem solving, communication and collaboration, innovation, (2) digital literacy skills including information literacy, media literacy, and ICT literacy, (3) careers and life skills include flexibility and adaptability, initiative, social and cultural interactions, productivity and accountability, and leadership and responsibility (Trilling & Fadel, 2009). Strengthening education and learning requires a novelty movement to respond to the industrial era 4.0. One of the movements proclaimed by the government was a new literacy movement as a reinforcer and even shifted the old literacy movement. The new literacy movement is intended to focus on three main literacies, namely: digital literacy, technology literacy, and human literacy (Aoun, 2017). These three skills are predicted to be skills that are needed in the future or the industrial era 4.0

Character learning is an essential thing to do at school. Students are accustomed to behaving well through the guidance and teachings of religion. This habituation is an attempt to shape the affective attitude of students to be able to carry out character values in everyday life. Closely related to the implementation of character values as an affective dimension in the learning process students have been widely studied in various studies as explained by Dos Santos & Mortimer, 2003; Zembylas, 2007; Abrahams, 2009; Schutz & Zembylas, 2011; Ritchie, Tobin, Hudson, Roth &Mergard, 2011; Bellocchi, Ritchie, Tobin, Sandhu & Sandhu, 2013; Dávila-Acedo, Borrachero, Cañada-Cañada, Martinez & Sánchez, 2015) which give the conclusion that emotions have an essential role in the whole teaching and learning process in schools (Pintrich, Marx & Boyle, 1993; Mellado, Borrachero, Brígido, Melo, Dávila, Cañada, et al., 2014).

Habit in the school is expected to be a culture for students both in the family environment and in people's lives. Character values developed in schools cannot be separated from policies made by the government and then developed based on the values held by the school. The values developed by the school are based on Islamic teachings that become its central control. The implementation of character education must involve aspects of "moral knowledge" and also "feel well or loving good (moral feeling), and ethical behavior (moral action). Increasing the quality of character-based learning places more emphasis on habits or habits that are continuously practiced and carried out by students at school, at home, and in people's lives (Howard, Berkowitz, and Schaeffer, 2004: 120).

Improving the quality of character-based learning carried out in schools is mostly in an effort to instill the character values that have been taught in Islam, namely: (1) Siddiq or heart (spiritual and emotional development), (2) *fathonah* or if thought (intellectual development), (3) mandate or sport and kinesthetic (Physical and kinesthetic development), and (4) *tabligh* or affection and creativity development. The four-character values that have been taught by Prophet Muhammad SAW were developed in education and learning so that in Islamic elementary schools so students can develop these traits in daily sociocultural life.

The implementation of the learning process in Al-Gontori and Al-Azhar Tulungagung Islamic elementary schools to (1) condition children to have good life habits, (2) seek or deepen the concepts of subject matter determined by the government, (3) incorporate Islamic material in the field of study and as a separate field of study that must be mastered by students as a means of life, (4) mental, mental and moral development of children. This is intended to provide a balance between psychological and physical needs to form a complete personality. This goal will be easily achieved by strategies to increase student learning motivation. Motivation must be possessed by students to have a strong desire to succeed in learning. This finding is reinforced by the results of Ismail and Abdulla's study (2019: 168), which explains that students' learning motivation must be improved properly to achieve learning achievement.

The implementation of character education carried out in Al-Gontori, and Al-Azhar Islamic Elementary Schools also seeks to empower the full potential of the school. Empowerment is carried out both in class and outside the classroom. Character education is held by prioritizing learning interactions that emphasize the activity of students in the entire learning process. For this process to work correctly, human resources are developed in a detailed manner and the fulfillment of the tools of learning activities. The development of students in the learning process is carried out by the teacher with full attention and enthusiasm so that students can develop well. This attention and enthusiasm is a value that is developed so that students have good habits and enthusiasm for

learning, so they have a habit of learning. This finding is also reinforced by the results of his research Magulod (2019: 184), which explains that there is a significant relationship between learning styles, study habits, and student academic performance. The implications of this study can guide teachers to plan and provide appropriate learning interventions. In this regard, Ebele and Olofu (2017) explain that there is a significant relationship between learning habits and student academic achievement. Looyeh, Fazelpour, Masoule, Chehrzad, and Leili (2017) also found that there was a relationship between study habits and student academic performance. Likewise, Siahi and Maiyo (2015) found that learning habits have a significant contribution to student academic achievement. I also found that learning habits require significant attention if we want to improve performance.

Students in Islamic Elementary School are expected to have competencies related to mastering knowledge and skills that are by the curriculum developed at school. Knowledge and skills that become excellent school programs are developed in the whole process of education and learning so that students have life skills or often referred to as life skills. Life skills are the result of learning held at Al-Gontori and Al-Azhar Tulungagung Elementary Schools. Life skills generally consist of: First: personal skills with components: learning skills (learning to learn, the necessary learning skills), adaptability, ability to overcome (cape ability), motivation, self-knowledge skills (self-awareness), independence, and responsibility. Second: social skills, which consist of: communication skills, cooperative and collaborative work skills (working in groups), and solidarity. This finding is very relevant to the education system developed by UNESCO, namely: learning to know, learning to do, learning to live together, and learning to be (Delors, 2013). Students are taught to know about the various types of character values that are in school, guided to run it, and get used to using character values in everyday life. This education is carried out to develop the potential of students to be creative.

The implementation of character-based education and learning in the Superior Elementary School was developed based on an integrated curriculum between government curricula and a typical curriculum for schools with full-day school systems. This curriculum was developed to equip students with the mastery of knowledge and skills, formation of Islamic culture, cultivation of faith, and habituation and implementation of Islamic values, which are the core values in Al-Gontori and Al-Azhar Islamic Primary Schools. These values are related to honesty, never give up, dare to try, religious. For example, to develop this religious value, children are accustomed to pray, say hello, pray in congregation, read the Qur'an, memorize the Qur'an (*tahfidz*), and so on, there are many more values that we developed in school so that children are able to carry out religious teachings well and have good characters.

The implementation of classroom learning is carried out using active learning strategies or often called active learning. Active learning is carried out to train students to play an active role in the entire learning process. The involvement of these students can help teachers to shape the competencies of students, both personal and social competencies. Expectations of active student involvement in the learning process so that students can improve their understanding of the learning material being studied.

The implementation of quality improvement of character-based learning in Al-Gontori and Al-Azhar Tulungagung Islamic Elementary Schools is carried out with the principle of continuous improvement. Improvements are always held when meeting weaknesses and weaknesses. Because of the shortcomings, weaknesses, and constraints, that always exist and are obtained in the whole process of education and learning in schools. Therefore, regularly, at the end of the week, a meeting is held between the principal and the teacher to hold a training and evaluation of the process that has been carried out for one week. Improvement of learning is carried out continuously (continuous quality improvement).

Improving and improving the quality of learning carried out in schools is emphasized more on the formation of student competencies in the various fields they teach or which become the curriculum in schools. Competence is essential for students to have in the era of industrial revolution 4.0 so that it has a strong foundation to continue in the next education. Students who have character and have excellent competence, then he will be able to carry out the character values that have been taught so that efforts to form superior and characterizing genes can be realized well. The hope is that if children are well-educated in elementary school, then the next level of the school, children will have the convenience to follow them.

The implementation of character-based learning quality improvement in Al-Gontori and Al-Azhar elementary schools is carried out sustainably with the existence of a quality control program. Quality control is carried out by evaluating processes and results in overall learning in schools. Process assessment is carried out through observation and reflection in learning activities to improve learning programs and the quality of student services. Assessment in improving the quality of learning is carried out using authentic assessment. This assessment is to find out the actual situation between processes and practices that occur professionally (Gulikers et al., 2004; Messick, 1994). This assessment is an effort to improve the quality of learning carried out by assessing the learning process. The teacher can assess by making observations on student activity, abilities possessed by students, ability to complete tasks, and portfolio. Segers, Dochy, and Cascallar (2003) argue that some aspects used in the assessment need to be well-formulated so that they can support the implementation of authentic assessments.

| 166

The implications of the results of this study can be explained that schools as educational institutions must be able to improve the quality of character-based learning well based on the school curriculum to achieve their vision and mission effectively. Principals, teachers, education staff, and parents must have a high commitment to be able to provide examples and models well to students in forming a suitable learning environment and can support the improvement of the quality of learning so that it can form a productive school culture. Characteristic values that become the core values of the school must be well formulated so that policies can be made and implemented in schools by all school members. This implementation must also be adequately controlled based on the quality standards that have been made by the school to achieve the objectives effectively and efficiently.

D. CONCLUSSION

Improving the quality of character-based learning carried out in Al-Gontori Islamic Elementary School and Al-Azhar Tulungagung using active learning models. Active learning is intended so that students can participate actively in the whole learning process in the classroom. Active learning developed in schools to strengthen and develop student character values in the entire learning process at school. Active learning is carried out in equipping knowledge, skills, and instilling character values that must be possessed by students in the industrial revolution era 4.0 in order to be able to form positive behaviors in improving learning achievement and in behaving well and politely in everyday life, both in school, home, and in people's lives.

Improving the quality of learning is done in shaping the academic competence and character of students based on competency standards in Al-Gontori and Al-Azhar Islamic elementary schools. Character values taught in schools to form students' soft skills so that they have the abilities and skills in everyday life. These values are related to religious values, honesty, enthusiasm for achievement, responsibility, discipline, the courage to try, hard work, respect for others, never give up, self-motivation to be better, and values of worship. These character values are carried out through the process of intervention and habituation. The intervention process is carried out and developed through learning activities designed to achieve the goal of character education with a variety of structured activities carried out by the school. Habit is carried out with an excellent example from the teacher. Examples have essential meanings to familiarize and cultivate character values that exist in the school.

BIBLIOGRAPHY

Abar, B., & Loken, E. (2010). Self-regulated learning and self-directed study in a pre-college sample. Learning and Individual Differences, 20, 25-29. https://doi.org/10.1016/j.lindif.2009.09.002

Abdillah Dalimunthe, R. A. (2016). Strategi dan Implementasi Pelaksanaan Pendidikan Karakter di SMPN 6 Yogyakarta. *Jurnal Pendidikan Karakter*. https://doi.org/10.21831/jpk.v0i1.8616

Abdollah, N., Ahmad, W. F. W., & Akhir, E. A. P. (2010). Multimedia design and development in "Komputer Saya" courseware for slow learners. In *2nd International Conference on Computer Research and Development, ICCRD 2010*. https://doi.org/10.1109/ICCRD.2010.44

Abidin. (2014). Desain Sistem Pembelajaran Dalam Konteks Kurikulum 2013. *Bandung: Refika Aditama*.

Abrahams, I. (2009). Does practical work really motivate? A study of the affective value of practical work in secondary school science. International Journal of Science Education, 31(17), 2335-2353. https://doi.org/10.1080/09500690802342836

Ali, M. (2013). Implementasi Kurikulum Pendidikan Nasional 2013. *Jurnal Pedagogi*.

Angelianawati, L. (2018). Being An English Teacher in Industrial Revolution 4.0: An Overview About Roles, Challenges, and Implications. *Jurnal Dinamika Pendidikan*.

Anjarwati, D., Winarno, A., & Churiyah, M. (2016). Improving Learning Outcomes by Developing Instructional Media-Based Adobe Flash Professional CS 5 . 5 on Principles of Business Subject. *IOSR Journal of Research & Method in Education*. https://doi.org/10.9790/7388-0605010106

Aryati, S. (2019). Tantangan Perguruan Tinggi di Era Revolusi Industri 4.0. *Prosiding Nasional*.

Aoun, J.E. (2017). Robot-Proof: Higher Education in the Age of Artificial Intelligence. US: MIT Press.

Awang, H., Aji, Z.M., Yaakob, M.F.M., Osman, W.R.S., Mukminin, A., & Habibi, A. (2018). Teachers' intention to continue using the Virtual Learning Environment (VLE): Malaysian context. Journal of Technology and Science Education, 8(4), 439-452. https://doi.org/10.3926/jotse.463

Bahri, A., & Corebima, A.D. (2015). The contribution of learning motivation metacognitive skill on the cognitive learning outcome of students within different learning strategies. Journal of Baltic Science Education, 14(4), 487-500.

Bellocchi, A., Ritchie, S.M., Tobin, K., Sandhu, M., & Sandhu, S. (2013). Exploring emotional climate in preservice science teacher education. Cultural Studies of Science Education, 8(3), 529-552. https://doi.org/10.1007/s11422-013-9526-3

Bentri, A., Zen, Z., Rahmi, U., Kurikulum, J., Teknologi, D., Fakultas, P., … Padang, U. N. (2014). Formulasi Strategi Penerapan Blended Learning dalam Implementasi Kurikulum di Jurusan KTP FIP Universitas Negeri Padang. *Jurnal Penelitian Pendidikan*.

Bogdan, R.C. & Biklen, S.K. (1998)*Qualitative Research for Education: An Introduction to Theory and Methods.* London: Allyn and Bacon, Inc.

Campus, Q. (2018). Tantangan di Era Revolusi Industri 4.0 Bagi Perguruan Tinggi Indonesia.

Choppin, J. (1997). The learning organization. *Managing Service Quality: An International Journal*. https://doi.org/10.1108/09604529710186606

Damşa, Crina I. (2014) The multi-layered nature of small-group learning: Productive interactions in object-oriented collaboration. Intern. J. Comput.-Support. Collab. Learn. (2014) 9:247–281 DOI 10.1007/s11412-014-9193-8

Dávila-Acedo, M.A., Borrachero, A.B., Cañada-Cañada, F., Martinez, G., & Sánchez, J. (2015). Evolution of the Emotions Experienced by Prospective Primary Teachers, Focused on Didactics of Matter and Energy. Revista Eureka Sobre Ense-Anza y Divulgación de las Ciencias, 12(3), 550-564.

Deal, T.E. & Peterson, K.D. (1999). Shaping school culture: The heart of leadership. San Francisco: Jossey-Bass

Delors, J. 2013. *The treasure within: Learning to know, learning to do, learning to live together, and learning to be. What is the value of that treasure 15 years after its publication*? Springer Science Business Media Dordrecht 2013. DOI 10.1007/s11159-013-9350-8

Dorovolomo, J., Phan, H. P., & Maebuta, J. (2010). Quality lesson planning and quality delivery: Do they relate? *International Journal of Learning*, *17*(3), 447–456.

Dos Santos, F.M.T., & Mortimer, E.F. (2003). How emotions shape the relationship between a chemistry teacher and her high school students. International Journal of Science Education, 25(9), 1095-1110. https://doi.org/10.1080/0950069032000052216

Eady, M.J., & Lockyer, L. (2013). Tools for learning: technology and teaching strategies. Learning to teach in the primary school, Queensland University of Technology, 71. http://ro.uow.edu.au/asdpapers/403

Ebele, U., & Olofu, P. (2017). Study habits and their impact on secondary school students' academic performance in biology in the Federal Capital Territory, Abuja. Educational Research and Reviews, 12(10), 583-588. https://doi.org/10.5897/ERR2016.3117

Flores, V.M., & Gómez, J. (2017). Applying Active Methodologies for Teaching Software Engineering in Computer Engineering. IEEE Revista Iberoamericana de Tecnologias del Aprendizaje, 12(3), 147-155. https://doi.org/10.1109/RITA.2017.2738178

Gulikers, J., Bastiaens, Th. & Kirschner, P. (2004) A five-dimensional framework for authentic assessment, *Educational Technology Research and Development,* 52(3), 67-85

Hillman, M., & Marshall, J. (2009). Evaluation of digital media for emergent literacy. *Computers in the Schools*. https://doi.org/10.1080/07380560903360186

Holden, D., Saito, J., & Komura, T. (2016). A deep learning framework for character motion synthesis and editing. In *ACM Transactions on Graphics*. https://doi.org/10.1145/2897824.2925975

Howard, R.W., Berkowitz, M.W.& Schaeffer, EstherF. (2014)'Politic Of Character Education*,* Article','SEGA, *Jornal Education Policy*, January and March 2004,120.

Ismail, S.S., & Abdulla, S.A. (2019). Virtual flipped classroom: new teaching model to grant the learners knowledge and motivation. Journal of Technology and Science Education, 9(2), 168-183. https://doi.org/10.3926/jotse.478

Jeong, J.S., González-Gómez, D., Cañada-Cañada, F., Gallego-Picó, A., & Bravo, J.C. (2019). Effects of active learning methodologies on the students' emotions, self-efficacy beliefs and learning outcomes in a science distance learning course. Journal of Technology and Science Education, 9(2), 217-227. https://doi.org/10.3926/jotse.530

Kandamby, G.W.T.C. (2018). Enhancement of learning through field study. Journal of Technology and Science Education, 8(4), 408-419. https://doi.org/10.3926/jotse.403

Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning and Education*. https://doi.org/10.5465/AMLE.2005.17268566

Learning, D. (2010). Innovative Teacher Professional Development. *International Review of Research in Open and Distance Learning*. https://doi.org/10.3102/0013189X033008003

Lee, J., Lapira, E., Bagheri, B., Kao, H., (2013). Recent Advances and Trends in Predictive Manufacturing Systems in Big Data Environment. Manuf. Lett. 1 (1), 38–41.

Litzinger, T.A., Lattuca, L.R., Hadgraft, R.G., & Newstetter, W.C. (2011). Engineering Education and the Development of Expertise. Journal of Engineering Education, 100(1), 123-150. http://www.jee.org https://doi.org/10.1002/j.2168-9830.2011.tb00006.x

Looyeh, H., Fazelpour, S., Masoule, S., Chehrzad, M., & Leili, E. (2017). The Relationship between Study Habits and the Academic Performance of Medical Sciences Students. Journal of Holistic Nursing and Midwifery, 27(2), 65-73. https://doi.org/10.18869/acadpub.hnmj.27.2.65

Magulod, G.C., Jr. (2019). Learning styles, study habits and academic performance of Filipino university students in applied science courses: Implications for instruction. Journal of Technology and Science Education, 9(2), 184-198. https://doi.org/10.3926/jotse.504

Marlina, W., & Jayanti, D. (2019). 4C dalam Pembelajaran Matematika untuk Menghadapi Era Revolusi Industri 4.0. *Prosiding Sendika*.

Mellado, V., Borrachero, A.B., Brígido, M., Melo, L.V., Dávila, M.A., Cañada, F. et al. (2014). Las emociones en la ense-anza de las ciencias (Emotions in the teaching of science). Enseñanza Ciencias, 32(3), 11-36.

Messick, S. (1994) The interplay of evidence and consequences in the validation of performance assessments, *Educational Researcher*, 23(2), 13-23.

Miles, M.B. & Huberman, A.M., *Qualitative Data Analysis A Sources Book of New Methods*, Beverly Hill, C.A.: SAGE Publication, 1984.

Mohr, N., & Dichter, A. (2001). Building a learning organization. *Phi Delta Kappan*. https://doi.org/10.1177/003172170108201007

Pakhrurrozi, I., Sujadi, I., & Pramudya, I. (2017). Effectiveness of the Jigsaw-Flash Learning Model in Geometry Material. *International Journal of Science and Applied Science: Conference Series*. https://doi.org/10.20961/ijsascs.v2i1.16708

Peng, X. Bin, Abbeel, P., Levine, S., & Van De Panne, M. (2018). DeepMimic: Example-guided deep reinforcement learning of physics-based character skills. *ACM Transactions on Graphics*. https://doi.org/10.1145/3197517.3201311

Pintrich, P.R., Marx, R.W., & Boyle, R.A. (1993). Beyond cold conceptual change: The role of motivational beliefs and classroom contextual factors in the process of conceptual change. Review of Educational Research, 63(2), 167-199. https://doi.org/10.3102/00346543063002167

Prince, M. (2004). Does active learning work? A review of the research. Journal of Engineering Education, 93(3), 1-10. https://doi.org/10.1002/j.2168-9830.2004.tb00809.x

Rahmaibu, Farida Hasan (2017). Pengembangan Media Pembelajaran Menggunakan Adobe Flash untuk Meningkatkan Hasil Belajar PKn. *Jurnal Kreatif : Jurnal Kependidikan Dasar*, *7*(1).

Ristekdikti. (2018). Era Revolusi Industri 4.0 Saatnya Generasi Millenial Menjadi Dosen Masa Depan.

Ritchie, S.M., Tobin, K., Hudson, P., Roth, W.M., & Mergard, V. (2011). Reproducing successful rituals in bad times: Exploring emotional interactions of a new science teacher. Science Education, 95(4), 745-765. https://doi.org/10.1002/sce.20440

Romanowski, M. H. (2005). Through the eyes of teachers: High school teachers' experiences with character education. *American Secondary Education, 34*(1), 6-23.

Rossi, R., & Mustaro, P. N. (2013). Quality evaluation of online courses through rubrics and the ADDIE model. In *2013 2nd International Conference on E-Learning and E-Technologies in Education, ICEEE 2013*. https://doi.org/10.1109/ICeLeTE.2013.6644380

Ryokai, K., Agogino, A., & Oehlberg, L. (2012). Mobile learning with the engineering pathway Digital library. International Journal of Engineering Education. 28(5), 1119-1126.

Sangsawang, T. (2015). Instructional Design Framework for Educational Media. *Procedia-Social and Behavioral Sciences*. https://doi.org/10.1016/j.sbspro.2015.01.445

Schutz, P.A., & Zembylas, M. (2011). Advances in teacher emotion research. Springer, Dordrecht

Segers, M., Dochy, F. & Cascallar, E. (2003) The era of assessment engineering: Changing perspectives on teaching and learning and the role of a new model of assessment, in M. Segers, F. Dochy & Cascallar E. (Eds.) *Optimizing new modes of assessment: In search of qualities and standards* (Dordrecht, Kluwer Academic Publishers).

Siahi, E.A., & Maiyo, J.K. (2015). Study of the Relationship between Study Habits and Academic Achievement of Students: A Case of Spicer Higher Secondary School, India [Abstract]. International Journal of Educational Administration and Policy Studies, 7(7), 2015th ser., 134-141. Retrieved February 8, 2018, from https://files.eric.ed.gov/fulltext/EJ1077791.pdf

Sinatra, G.M., & Taasoobshirazi, G. (2011). The Self-regulation of Science learning. In Schunk, D.H., & Zimmerman, B. (Eds.), Handbook of Self-regulation of learning performance. Taylor & Francis.

Subadi, T., Priyono, K. D., Dahroni, & Musyiyam, M. (2015). Implementasi Pembelajaran Ips Berbasis Kurikulum 2013 Melalui Lesson Study Di Sekolah Muhammadiyah Kartasura. *Warta*. https://doi.org/10.23917/warta.v18i1.1168

Sutyitno, I. (2012). The development of education on the character and culture of the nation based on local wisdom. *Jurnal Pendidikan Karakter*.

Syamsuar, R. (2019). Pendidikan dan Tantangan Pembelajaran Berbasis Teknologi Informasi di Era Revolusi Industri 4.0. *E-Tech: Jurnal Ilmiah Teknologi Pendidikan*.

Trilling, B & Fadel, C. (2009). 21st-century skills: learning for life in our times. US: Jossey-Bass A Wiley Imprint.

Triyono, M. B. (2015). The Indicators of Instructional Design for E-learning in Indonesian Vocational High Schools. *Procedia - Social and Behavioral Sciences*. https://doi.org/10.1016/j.sbspro.2015.08.109

Valdez, J., & Bungihan, M. (2019). The problem-based learning approach enhances problem-solving skills in the chemistry of high school students. Journal of Technology and Science Education, 9(3), 282-294. https://doi.org/10.3926/jotse.631

Valsiner, J., & van der Veer, R. (2000). The social mind: Construction of the idea. New York: Cambridge University Press.

Weinstein, C.E., Acee, T.W., & Jung, J. (2011). Self-regulation and learning strategies. New Directions for Teaching and Learning, 126, 45-53. https://doi.org/10.1002/tl.443

Wenger, E. (2000). Communities of Practice and Social Learning Systems. *Organization*. https://doi.org/10.1177/135050840072002

Wertsch, J. V. (1998). Mind As Action. NewYork: Oxford University Press

Zembylas, M. (2007). Emotional ecology: The intersection of emotional knowledge and pedagogical content knowledge in teaching. Teaching and Teacher Education, 23(4), 355-367. https://doi.org/10.1016/j.tate.2006.12.002

Winch-Dummett, C. (2006). Successful pedagogies for an Australian multicultural classroom. *International Education Journal*, *7*(5), 778–789.