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Model of Holistic Education-Based Boarding School: A Case Study at Senior High School

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Abstract: This study aims to analyze the implementation of holistic education and determining its supporting and hindering factors at a boarding high school in Malang, Indonesia. The method of this research is qualitative descriptive with a case study approach in the State Senior High School 10 Malang, Indonesia. The data collection technique was done through interviews and observations. The data analysis employed data reduction, data presentation, and conclusions making. The results showed that holistic education in the State Senior High School 10 Malang included the academic, leadership program, extracurricular, youth entrepreneurship, and environment caring programs. The supporting factors of the holistic education were curriculum, professional teachers, principal leadership, learning process, facilities and infrastructure, school management, three educational centers, and school culture. Meanwhile, the inhibiting factors included the low number of boarding teachers and the high operational costs. The results suggest that all schools should provide equal access to qualified education services to the whole nation through holistic education programs to produce intelligent and competitive students.

Keywords: *Holistic education, boarding high schools, school culture, supporting and hindering factors.*

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Introduction

The role of educational environments should be regularly revitalized to guarantee the success of learning goals in producing graduates who are ready to compete and face the complex global challenges. Education as a means of increasing competitive human resources plays a role in providing skills, intelligence, achieving optimal potential for students. According to Dewantara (1977), the family environment is the first foundation to form basic character, thought, belief, and mental. The school environment provides intelligence training, knowledge transfer, social interactions, and character development. Meanwhile, the role of the community is as a place to work and serve. The challenges of the 21st century have changed many fundamental behaviors including the shift of parenting roles from families into boarding schools. This current 4.0 era also urges schools to create accelerated strategies to deal with the rapid development of technology. The qualified learning process and successful educational reforms can be achieved by transforming the learning culture into the context of lifelong learning that integrates the three domains of cognitive (head), affective (heart) and psychomotor (hand) as well as combining various learning styles, strategies, methods and procedures (Bruner, 1977; Gazibara, 2020). Those demand teachers to be able to stimulate various learning domains comprehensively through holistic education.

Holistic education is influenced by the progressive educational movement (Dewey, 1950). It harmoniously develops and empowers all of the given human potentials (Ushuludin et al., 2019). The learning process focuses on the unity and harmony of spiritual, intellectual, emotional, creative, artistic, and cultural aspects (Oentoro, 2010). Similarly, Illeris (2007) defines holistic education as an effort to build a whole-learning balance for every student including spiritual, moral, imaginative, intellectual, cultural, aesthetic, emotional, and physical qualities.

Based on the description above, holistic education can be described as a comprehensive education as an effort to develop human beings as a whole that balance students' intelligence, emotion, spiritual, kinesthesia, and creativity to produce a well-rounded person that embraces four-character education pillars, i.e. (1) intellectual development, (2)

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affective development, (3) spiritual and emotional development, and (4) physical and kinesthetic development. It will make individuals be able to comprehend meaning and purpose in life through their interaction with society, nature, and spiritual community (Komalasari & Saripudin, 2018). Education should accommodate various potentials and uniqueness of each individual to produce the future generation who are able to direct better nation life (Hjerm et al., 2018). Currently, in Indonesia, there have been various educational efforts carried out with the concept of holistic education, especially the emergence of numerous boarding schools for the junior and senior high school levels or even full-day schools, such as Integrated Islamic schools, Indonesia Heritage Foundation (IHF) and Nature Schools. A character-based holistic education model has been developed at the Indonesia Heritage Foundation (IHF) focusing on the formation of entire aspects of the human dimension to become a person of character.

The implementation of holistic education in boarding high schools is strongly determined by the school's vision and mission, curriculum, teachers and school principals, operational costs, facilities and infrastructure, school management, and school culture (Sutarman et al., 2017). Many schools have implemented the concept of holistic education, both common schools, and boarding schools. To give a clear picture of holistic education particularly in this current era, the conceptual framework of this study on the holistic education model of the 21st century is presented in Figure 1 below.

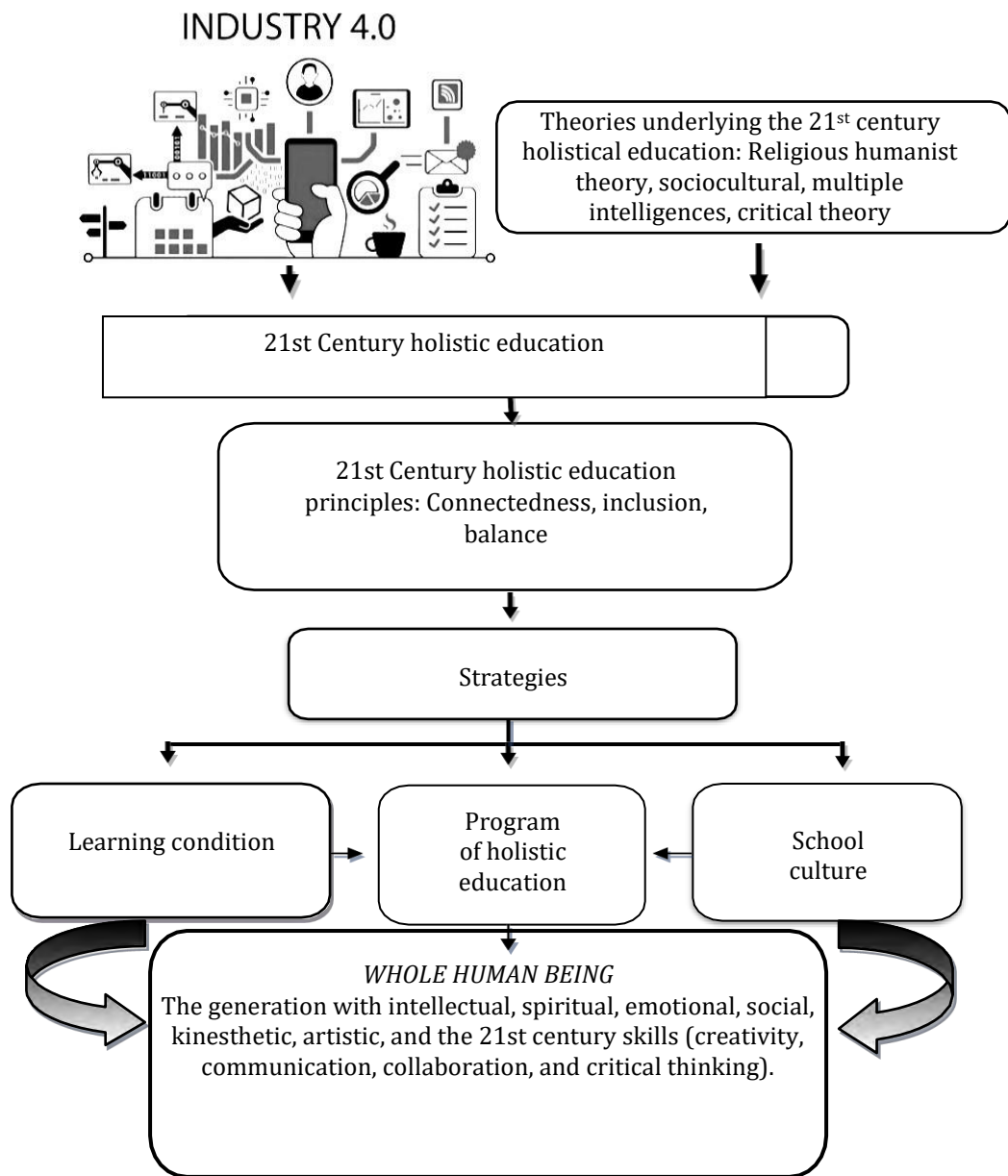


Figure 1. The holistic education model of the 21st century

The holistic education model in the above scheme explains that holistic educational practice requires a systemic and comprehensive approach. Education can be seen in two ways, namely education as practice and education as theory. Education as a practice is a set of activities or activities that can be observed and realized with the aim of helping

students obtain behavior change. While education as a theory is a set of knowledge that has been systematically arranged which functions to explain, describe, predict, and control various symptoms and events of education. Several educational theories that can be used as a basis in examining the concept of holistic education are critical pedagogy theory, religious humanist education theory, sociocultural theory, and multiple intelligences theory. This proves that in holistic education practice, we must pay attention to the synergy between roles and between aspects related to the learning process.

The concept of critical pedagogy is a form of awareness with the aim of liberating learners from oppression during the knowledge search process. Thus, the teacher must give freedom to students to always explore and be creative in the learning process. Learning as a form of reinventing, recreating, and rewriting. This is the task of a subject, not an object (Freire, 2008). According to the viewpoint of critical pedagogical theory, schools must get rid of methods and curricula that shackle students. Education should be run democratically, respecting the rights of learners and humanist.

The theory of religious humanist education integrates two educational concepts, namely humanist education and religious education. Humanist education that emphasizes the aspect of individual independence is integrated with religious education in order to build an individual-social life that has freedom, in accordance with religious values. Thus, religious humanist education as a conscious effort based on humanity to create a more dignified life from the aspects of human relations as well as relations with God.

According to sociocultural theory, the use of a person's thinking tools cannot be separated from the influence of their sociocultural environment. The sociocultural environment will increase the complexity of the abilities possessed by each individual. This theory emphasizes the social context in which development occurs. Social interactions affect children's thinking and behavior. Children's thinking develops if they are involved in specific cultural activities such as family events, interactions with peers, and community activities (Salkind, 2009). Sociocultural theory states that culture and education are inseparable, because they are very closely related, where education and culture study at the same level, namely values. The existence of a dormitory as a residence for students has certain social functions related to the education and learning process more broadly. If it is managed properly and appropriately, the dormitory will become an effective means of building a desired school culture. Dormitories can be used to form values.

Through the multiple intelligence approach which views that a human being has several potential intelligences. One of the intelligences of each student must be developed so that in the end, it becomes a very dominant competence he mastered. All types of intelligence need to be stimulated in students. The findings of Gardner (2003) regarding the theory of multiple intelligences have been widely adapted by this school, as an early detection of intellectual talent, arts, and sports. Schools facilitate students to develop talents or interests and talents in various fields.

According to Mohmoudi et al. (2012), the objectives of education which in principle are able to develop students optimally. Likewise, the opinion of Miller (2005) which emphasizes the importance of applying three principles in the implementation of holistic education, namely connectedness, inclusion, and balance. The principle of connectedness refers to the link between the curriculum framework and the various approaches used at the learning level. Education should always be linked to the physical environment, natural environment, social environment and cultural environment. While the principle of inclusion is the extent to which the coverage of various students who can be involved in education, children with special needs still have the right to learn. Openness means that education should reach all children without exception. All children have the right to have education. The principle of balance of the holistic education model applied at the State Senior High School 10 Malang is education which develops all individual potential in a fun, democratic, and humanist learning atmosphere, by integrating the 4 Hs: Head (intellectual), Heart (heart, emotional, social, and spiritual), Hand (hands, skills), and Healthy (health) through experience and interaction with the environment and society. The concept of holistic education which is implemented in the State Senior High School 10 Malang, is a combination of the concepts of UNESCO and Dewantara (1977) which aims to make children grow into generations that have intellectual, spiritual, emotional, social, kinesthetic, artistic, and 21st century intelligence (creativity, communication, collaboration, and critical thinking).

The holistic education process in Indonesia must be actualized and maintained to be a trend. However, the findings from Widyastono (2012) concluded that holistic education has not been comprehensively implemented by various aspects. So far, the learning process only focuses on cognitive aspects that fail to develop psychomotor and affective aspects (Ghani & Riadi, 2012; Jalaludin, 2012). It urges the implementation of holistic education in schools. Lauricella and Macaskill (2015) in their study revealed that holistic education can help students in deciding their study program for college level, understanding their career prospects, and adapting to different communities. Holistic education contains several aspects that must be harmoniously grown, such as intellectual, emotional, physical, social, humanist, and spiritual aspects (Ricci & Pritscher, 2015; Rukiyati, 2013; Ushuludin et al., 2019). Educational planning must be carefully done by paying attention to principles, norms, rules, and involving teachers, students, and parents. Thus, all dimensions of a child's development are integrated and occur simultaneously, each of which does not stand alone, since the development of one aspect is influenced by other aspects.

The consequence of the industrial revolution 4.0 on the education field needs to be taken seriously from now on. Indonesia must reform the education process to face the challenges of the disruption era to prepare human resources

(HR) who are able to develop innovative and creative ideas. This condition requires teachers to act as facilitators and inspirations during their teaching process. According to Miller et al. (2005), holistic educational practices in schools should be designed to facilitate students in developing their potentials in a fun, democratic, and humanist learning atmosphere. It means school learning programs must include the development of various kinds of intelligence such as emotion, aesthetic, interpersonal skills, social and spiritual (Ushuludin et al., 2019). The concept of holistic education in the 21st century can be a strategy to pass the challenges of future education in preparing for the current generation to have creativity, communication, collaboration, and critical thinking skills.

Holistic education as part of democratic education deals with individual freedom and social responsibility to build a culture of harmony, the sustainable development of human morality and spirituality (Mahmoudi et al., 2012). The difference between holistic education and other types of education is in its purpose and attention to the learning experience, as well as the commitment to place education as the main human values (Ricci & Pritscher, 2015). Holistic education can be successfully achieved if carried out by competent teachers because they are the spearhead of educational success (Lauricella & Macaskill, 2015). Teachers can act as friends, mentors, facilitators, and role models for students (Kaigama & Audu, 2014). Being a teacher must be able to master the material to be delivered, apply the right method, understand students, and convey ideas to provide a meaningful learning experience (Musfah, 2012).

Based on the preliminary study through observation, several educational aspects in boarding schools had not implemented holistic education. The reasons that underline this situation are 1) the good boarding schools can only be enrolled by children from wealthy families due to the high school fees. It goes against the equity spirit where all people should have the same right and opportunity to obtain qualified educational services, 2) the concept of holistic education put forward by several educational figures and experts is a relatively new theory of an ideal education concept, but it is still lack of practices models, and 3) the moral crisis among Indonesia's young generation has challenged the world of education, especially schools to implement the education concept that can reduce and overcome these problems. Based on previous research, it shows that the character-based holistic education model in the Indonesian Heritage Foundation (IHF) character school has succeeded in fostering children's character that is integrated with subjects in elementary schools (Yuliana et al., 2020). Thus, the position in this study only continues the shortcomings of previous research so that the focus is on analyzing the implementation of holistic education and determining the supporting and inhibiting factors in boarding high schools.

Based on the background and problems described above, this study is focused on the implementation of a holistic education model in boarding high schools. Right now, most parents prefer boarding schools for their children's education. Unfortunately, the cost of boarding school is generally expensive, and it makes few children having the opportunity to join boarding schools. Therefore, it is interesting to investigate the State Senior High School 10 Malang as a boarding high school in East Java Indonesia that has an excellent program to accept outstanding students from underprivileged families through the scholarship program. This school can also be an option for parents with adequate economic conditions but have limited time for their children. They can entrust their children to live in a dormitory under supervision to make sure they get proper interaction, nutrition, health, safety, social, and most importantly education. This research tries to reveal the model for implementing holistic education in boarding high schools in the State Senior High School 10 Malang as well as the supporting and inhibiting factors.

Methodology

Research Goal

This study aims at revealing the implementation of holistic education and to determine the supporting and inhibiting factors in the boarding high schools in Malang, Indonesia. This research used a qualitative descriptive method with a case study approach. In this study, the researchers tried to find information on how the practice of holistic education including the school's activities, the role of school members, and the behavior that were observed naturally without any manipulation of the subject under study. The researcher acted as a key instrument for data collection by directly visiting the data source. This research was conducted in the State Senior High School 10 Malang, Indonesia from 2018 to 2019. This school was chosen as the research setting because has its uniqueness. It has implemented holistic education together with national and international curriculum since 2009 under Sampoerna Academy as a school for outstanding students from low-income families.

The research subjects were determined using a purposive sampling technique based on the research objectives. The data source used is more likely to represent the information (Moleong, 2012). The research consisted of principals, teachers, administrative staff, students, and school committees.

Sample and Data Collection

Data collection was done through direct observation and in-depth interviews. The data validity in qualitative research refers to the standards of credibility, transferability, and dependability. According to Creswell (2010), the validity determination of the human instruments is measured by the researchers themselves, through self-evaluation on the understanding of the research methods, theories mastery, and insight into research topics. The data collection was

through careful observation of social interactions during the holistic education process. The number of respondents observed in the school setting was 10 respondents. The observation guide is presented in Table 1 below.

Table 1. The observation guidelines of holistic education

Empirical information	Indicators
Cognitive (Intellectual intelligence)	Student data based on passing scores Data on the results of summative and formative tests
Affective (Social and Spiritual Intelligence)	Students' attitudes in classroom learning (towards friends and teachers) Students attitudes during ceremonial activities Students attitudes during extracurricular activities Students attitudes in library Students attitudes in canteen Students attitudes during religious/ spiritual activities
Psychomotor (kinesthetic intelligence)	Student activities in sports, and arts activities in school and dormitory

The in-depth interview stage in this study was to collect direct data from the respondents who understood the research problem. Interviews were conducted with 10 respondents. Table 2 presents the number of interview respondents, while Table 3 shows the interview guidelines below.

Table 2. The interview respondents

No	Name	Role	Religion	Gender
1	Mrs. NA	Headmaster	Islam	Female
2	Mr. ATW	Teacher	Islam	Male
3	Mrs. Har	Teacher	Islam	Female
4	Mrs. Sety	Teacher	Islam	Female
5	Mrs. RWA	Teacher	Islam	Female
6	Mr. Yuf	Teacher	Islam	Male
7	Mr. Bgs	Teacher	Islam	Male
8	Mrs. Farh	Teacher	Islam	Female
9	Mrs. Sri	Teacher	Islam	Female
10	Mrs. Suh	Teacher	Islam	Female

Table 3. Interview guidelines

The proposed Questions	Question Number
1. The educational theory which is used as the basis for implementing holistic education in boarding high schools to develop a whole person.	1, 2, 3
2. Operational definitions of holistic education implemented in boarding high schools based on the perceptions of teachers and school principals.	4,5
3. Implementation of holistic education in boarding high schools as an effort to build school culture.	6,7,8,9,10
4. A holistic education model based on the best practice in the State Senior High School 10 Malang	11,12,13,14,15

Data Analysis

The data analysis in this study used an interactive model analysis (Milles & Huberman, 1984). Data analysis began with (1) data collection from observations and interviews were outlined in a complete and detailed description of the report, (2) data reduction was done during data collection by making a summary. The data and field reports were then reduced, summarized. Then the main things were sorted focusing on the most important aspects, then looking for themes or patterns through the process of editing, coding, and labeling. Once selected, the data was simplified by classifying and abstracting the data. (3) Data presentation or display was intended to make it easier for the researchers to see the overall picture or certain parts of the research data. The data were then sorted into groups and arranged according to similar categories aligning with the encountered problems including temporary conclusions after the data reduction. (4) Conclusions were made by interpreting the classification results of the study. The meanings that emerge from the data were tested for its validity to make sure the conclusions agreed with the empirical evidence in the field. After concluding the theme or result the interpretation was made. The conceptualization of this new construct was formulated by taking the positive values that existed in the school setting. In this research to maintain the reliability of the research, documentation was carried out as many steps as possible and compile carefully the documents and data obtained.

Findings

Implementation of Holistic Education Model in the State Senior High School 10 Malang

Learning Conditions

The implementation of holistic education during the learning process in the State Senior High School 10 Malang is done starting from planning, implementation, and evaluation of all subjects. The following is an excerpt from the interviews with students and alumni about the learning process in the class. The A1 Informant clarifies that in the learning process, teachers employ more student-centered learning that encourages students to be more active. The teacher's role seems to be a guide and a friend. It makes the students comfortable during classroom learning. *"I like our teachers because it feels that they have us"* (the A1 Informant). The A2 informant adds that *"It is fun. Although sometimes there are many assignments, we still enjoy the school atmosphere because the teachers always support us. The learning process also varies that sometimes we are invited to have games or outdoor learning"*. In the same opinion, the A3 informant says *"The learning is very fun, and our teachers often hold games or ice breakers inside or outside the classroom"*.

Learning by doing is the learning approach that is usually applied in the learning process in these schools. Based on the results of observations and interviews, it can be concluded that the subject matter is developed more contextual based on the reality in the surrounding environment and the latest information, not just textbook-oriented. The implementation of the learning process involves students to solve problems with teachers' guidance and gives freedom to students but still emphasizing mutual respect and attention to one another.

The learning process in this school provides space for each individual to develop their potential, and it makes them enjoy the process. They do not have a feeling to be forced since they are highly motivated. The following are the results of direct interviews with the respondents on how the schools facilitate the students to develop their talents or interests. The S1 informant mentions that *"To develop talents or interests, the school directs students through the Learn to Live program which includes arts, sports, nature care, and nationalism. The schools also motivate students to excel in these various fields"*. Similarly, the S2 informant utters that *"The school facilitates students to develop their talents or interests in various fields including arts, sports, nature, and nationalism. We are directed to be balanced in academic and non-academic achievements"*. Based on the interview results, it can be concluded that the school accelerates students to develop their talents or interests in various fields.

Programs of Holistic Education

The effect of holistic education practices on students' development at State Senior High School 10 Malang, it has succeeded in becoming one of the schools that has different characteristics from other schools. Through extracurricular activities known as learning to live is a form for students to develop their talents, think creatively, and learn to socialize. The learning to live activity is an extra-curricular activity outside of class hours which requires State Senior High School 10 Malang students to get 80 hours of study. Learning to live activities prioritize the experiences students get after participating in these activities. Thus, conceptually the 21st century holistic education model applied at State Senior High School 10 Malang is education which develops all individual potential in a fun, democratic, and humanist learning atmosphere, by integrating the 4 H: Head (intellectual), Heart (heart, emotional, social, and spiritual), Hand (hands, skills), and Healthy (health) through experience and interaction with the environment and society. The State Senior High School 10 Malang applies the national curriculum and the international standard curriculum. All graduates are expected to have academic, language, and other skills that meet the acceptance standards for higher education students with a good reputation overseas. The school consistently produces high-achieving students at the international level. Since 2011, Sampoerna Academy (SA) students have received the highest scores in Mathematics, Art and Design, Biology, Chemistry, Information and Communication Technology.

Some students and alumni of State Senior High School 10 Malang who had studied with the Cambridge IGCSE curriculum when interviewed directly or online said that SA1 *"During the first year we studied full IGCSE plus religion, history and geography. Then, at the end of the year, we took the IGCSE exam. Based on the results of learning during that year, several children were grouped to get how many subjects according to ability, so not all children could get the full subject."* According to the informant SA2, *"Learning the Cambridge curriculum uses full English. The material actually does not differ much, it is only more profound, contains more analysis and really needs to be understood. We were taught to be more critical, and change instant mindsets. If you want to continue your study abroad, we have to take the Scholastic Aptitude Test (SAT). In 2011, 33 students took the Scholastic Aptitude Test (SAT) which is an academic test to continue to universities in America. In fact, there were 18 students who could pass to continue to the US."*

The interview excerpt above is the learning experience of students and alumni with the Cambridge curriculum at State Senior High School 10 Malang. From these quotes, it can be concluded that learning the Cambridge curriculum is actually not much different from the national curriculum. The material being studied must make students really understand, not just memorizing concepts so that students can analyze and solve real problems with the reasoning and concepts that have been learned. The results of direct online interviews via Facebook and questionnaires from respondents about how schools facilitate students to develop their talents or interests and talents in various fields, arts,

sports and skills. The undergraduate informant stated "To develop talents or interests and talents, the school directs students through the learn to live program which includes arts, sports, love of nature, and nationalism. Schools also motivate students to excel in these various fields ". Meanwhile, the SA2 informant "School facilitates students to develop their talents or interests and talents in various fields, including arts, sports, love of nature, and nationalism. We are directed to be balanced in academic and non-academic achievements ".

The holistic education model requires a systemic and comprehensive linkage of approaches. Even between elements cannot be separated, either in a conceptual setting or in a process and school program setting. This proves that in holistic education practice, we must pay attention to the synergy between roles and between aspects related to the learning process. The State Senior High School 10 Malang has implemented the principle of connectedness through academic programs which include Education for Sustainable Development (ESD), Rice Project, United World College (UWC) Indonesia Selection; Extracurricular Learning to live Program, Youth Entrepreneurship Program (YEP), and Environment Caring Programs.

The principle of inclusion by having a scholarship program at Sampoerna Academy Malang for outstanding children from underprivileged families is an effort so that they have the same opportunity to receive quality education. On the principle of balance, the holistic education concept, which is combined with the concepts of UNESCO and KI Hajar Dewantara at State Senior High School 10 Malang aims to make children grow up to be a generation that is smart, has character, is healthy, skilled and has a leadership spirit. Former students of State Senior High School 10 Malang are expected to become future leaders of the Indonesian state who are competent, have an international perspective and have morals, able to compete internationally and are ready to face global challenges through holistic education programs and boarding education.

The 21st-century holistic education implemented in the State Senior High School 10 Malang was initiated by the United School Program (USP) Sampoerna Foundation in 2006. To apply the 21st-century holistic education, the school formulates the school vision and mission, programs, goals, and concrete achievement indicators for each five years. During the interview, the principal mentions "The formulation of the school vision and mission, programs, goals and concrete achievement indicators is compiled every five years. The formulation process involved the principal, the teachers, the staff and several students who represented each extracurricular activity". The programs and the targets of the holistic education are presented in Table 4 below.

Table 4. Holistic Education Program in the State Senior High School 10 Malang

Program	Developed Potentials	Target
a. Academic	4 H	
1) Implementation of the School-Based Curriculum/ the 2013 Curriculum integrated with the International Curriculum of IGCSE	1. Head : Intellectual 2. Heart: Emotional, spiritual, and social 3. Hand : Skills Health	▪ The meaningful learning process by integrating the School-Based Curriculum/ the 2013 Curriculum and the International Curriculum of IGCSE
2) Smart lab A collaborative program with Universitas Siswa Bangsa Internasional (USBI) Jakarta, USAID and Intel by establishing a program called Science, Mathematics, Art, Engineering, and Technology (SMART) laboratory	2 H 1. Head : Intellectual 2. Hand : Skills	▪ The development of teachers and students' competency in STEM (Science, Technology, Engineering, Mathematics) course.
3) ESD (<i>Education for Sustainable Development</i>) of the Rice Project Education for Sustainable Development in a multidisciplinary fields combining the development concepts based on economic, social, cultural and environmental perspectives	4 H 1.Head : Intellectual 2. Heart : Emotion, spiritual, and social. 3.Hand : Skills 4.Health	▪ The high quality learning process that support sustainable development
4) United World College (UWC) Indonesia Selection, The opportunity to pursue higher education abroad through the Scholarship program	2 H covers 1.Head : Intellectual 2.Hand : Skills	▪ The high students' motivation to get scholarships to study abroad. ▪ The development of students' critical thinking and appreciation of cultural differences

Table 4. Continued

Program	Developed Potentials	Target
5) Developing an instrument to assess the students' performance	4 H 1.Head : Intellectual 2. Heart : Emotion, spiritual, and social. 3.Hand : Skills 4.Health	<ul style="list-style-type: none"> ▪ The student's portfolio to show the progress of students' life skills and creativity
b. Extracurricular Learning to live	4 H	<ul style="list-style-type: none"> ▪ All students join Personal Well Being (PWB) program by taking part in the Learning to Live program about 240 hours for 3 years ▪ All students join the physical activities to maintain their fitness
1) <i>Personal Well Being (PWB)</i> program consisting of silat, karate, taekwondo, futsal, volleyball, basketball, badminton, chess, flag raiser, etc.	4 H 1.Head : Intellectual 2. Heart : Emotion, spiritual, and social. 3.Hand : Skills 4.Health	
2) <i>Global Environment Citizenship</i> or GEC Developing the sense of environmental care and loving fellow creatures of Allah that include the activities of Flag Raiser, Youth Research Council, Red Cross, water conservation, planting Family medicinal lants, vegetable and fruit plants and ornamental plants	4 H 1.Head : Intellectual 2. Heart : Emotion, spiritual, and social. 3.Hand : Skills 4.Health	<ul style="list-style-type: none"> ▪ All students join leadership training for ▪ The growth of nationalistic spirit among students ▪ The growth of environmental caring character among students
3) <i>Creativity and Art (C&A)</i> Developing students' creativity, art, and innovation through theater, broadcasting, music, painting, art, modern & traditional dance, and journalism	4 H 1.Head : Intellectual 2.Heart : Emotion, spiritual, and social 3.Hand : Skills 4.Health	<ul style="list-style-type: none"> ▪ The development of students' creativity, art, and innovative ideas
4) <i>Community Service</i> Collaboration with orphanages, nursing homes, kindergartens, elementary schools, disabled children's home foundations, the Sanitation Service, Police Service, Social Service, Smile Train Foundation, and other community services	2 H covers 1. Head : Intellectual 2. Hand : Skills	<ul style="list-style-type: none"> ▪ The students can obtain identity, meaning, and goals of life through connections to the community
c. Youth Entrepreneurship Program (YEP) Developing entrepreneurial capacity among students and preparing the younger generation to build the nation's economy that contains 4 business units in YEP, i.e. merchandise, fishery, garden product processing unit, and soybean unit	4 H 1.Head : Intellectual 2. Heart : Emotion, spiritual, and social. 3.Hand : Skills 4.Health	<ul style="list-style-type: none"> ▪ The development of entrepreneurship mindset among students
d. Leadership Program " <i>Seven Habits for Teens</i> " & " <i>The Leader in Me</i> "	3 H 1.Head : Intellectual 2.Heart : Emotion, spiritual, and social 3.Hand : Skills	<ul style="list-style-type: none"> ▪ The growth of leadership character through 7 habits of global principles among students and all school members
e. Environment Caring Programs	4 H	<ul style="list-style-type: none"> ▪ The green and clean school environment
1) <i>UKS</i> school (health unit)	1.Head : Intellectual	All students and school member take part in the environment caring program surround the school
2) <i>Sobat Bumi</i> school (earth Care)	2.Heart : Emotion, spiritual, and social	
3) <i>Adiwiyata</i> school (environment care)	3.Hand : Skills 4.Health	

The above programs are socialized to parents and students at the beginning of the new school year in the special event called Foundation Study. The purpose of this activity is to provide an overview of the school learning model. It contains the academic and non-academic information on how to study effectively, to socialize well, to manage pocket money, and more. The Foundation Study is carried out for approximately the first 4 weeks in the first semester. After participating in this event, the students can immediately adjust and follow all the activities and programs in the school.

The holistic education in the State Senior High School 10 Malang relates to the students' needs and potentials including Head (intellectual), Heart (emotional, spiritual, and social), Hand (skills), and Health. The programs implemented in the school are expected to be able to grow a whole human being by developing all students' potential. The application of portfolio assessment in learning begins by introducing the portfolio system to students, and the assessment procedure during the learning process, as well as the portfolio scoring system. The following are the results of the interview with the students regarding portfolio assessment, the G1 informant states that "*Portfolio assessment is focused on improving students' concepts understanding which can be in the form of student learning journals, material summaries, homework, assignments (individual writing assignments and groups), collections of student works like paintings, videos, poetry, short stories, etc. and the collection of appreciation certificate*". Furthermore, the G2 informant mentions that "*Portfolio assessment allows students to participate more in the learning process to enhance students' activity and learning outcomes. The criteria for the Portfolio Assessment can be negotiated between teachers and students*". It is supported by the opinion from the G3 informant who states that "*The portfolio is dominating the assessment in this school. Our school has a Youth Entrepreneurship Program (YEP) which accommodates various student business units. In fact, one of the student business units is able to foster Family Welfare Empowerment in the neighborhood around the school by making bags from used newspaper materials, Even, Malang Mayor praised for the bag products, as well as food, soy milk, and other products from the student business units*".

The holistic education process in the school includes the process of institutional management that can be seen from the organizational structure, main duties, and functions. The decision-making process is made by the management and the school principal. The program can be seen from the curriculum, the program objectives, the learning process, and the monitoring and evaluation of which the learning process is considered as the most important part compared to other processes.

The achievement of the holistic education process in the school can be clarified from several indicators arranged by the school in 2015-2020, namely the implementation of the 2013 Curriculum and the IGCSE. Based on the results, all students carry out the Learning to Live program and obtain leadership training where each student at least 2 times in 3 years playing the role of a leader. The students' portfolios describe the development of life skills, creativity, critical thinking, and diversity appreciation.

The above indicator becomes the guideline to implement the 21st-century holistic education in the State Senior High School 10 Malang. This school tries to provide services, expansion, and equal opportunities for every child to obtain a high-quality secondary education.

The IGCSE of Cambridge syllabus is used by the teachers who have been trained, especially on their English competency. Each subject is different in this program with comprehensive mixed assessment including classroom learning, practical exercises, oral and listening tests, as well as project and written examinations. Several students and alumni of the school who had studied with the Cambridge IGCSE curriculum were invited to have direct interviews or online. The S1 informant admits, "*During the first year, we learn full of IGCSE curriculum with some additional courses of Religion, Civics Education, History and Geography. In the second and third years, we began to learn with the School-Based Curriculum. At the end of the first year, we took the IGCSE exam and the results determined the students' group based on their abilities, so not all students got the full-subjects*". Meanwhile, the S2 informant mentions that "*Learning with the Cambridge IGCSE curriculum uses full English for the classroom interaction. The material is not different from the general schools, but it is a bit more profound and demands more analysis. It requires high concentration to be understood. I think having the opportunity to study a foreign curriculum is so fun and challenging that we do not only learn the material but also the foreign cultures*". The interview excerpt above is the learning experience both the students and the alumni with the Cambridge IGCSE curriculum in the school where it can be concluded that the learning is quite similar with the national curriculum. The material being studied make students truly understand not just memorizing concepts so that they can analyze and solve real problems with their reasoning and concepts understanding.

Moreover, the role of a leader in an organization is crucial and in this school, the principal performs well approaches to the subordinates. This can be seen from the principal supervision ways. The interview results with the teachers on the principal's leadership style are gathered from the G1 informant who mentions that the principal is quite assertive and democratic. He emphasizes that the work program must meet the target. He is a hardworking type and is persistent to elevate this school. A similar view is expressed by the G2 informant, "*He is enthusiastic, firm and disciplined. He usually assesses and knows the performance and the potential of each teacher before giving additional responsibilities*". The G3 informant also utters that "*Well, he can guide us and he is very enthusiastic, even sometimes seems too ambitious. But, those are for the sake of the school progress*". It is supported by the G4 informant that explain the school principal is firm, and disciplined, and can well appreciate others' work. The principal will give full trust if the subordinates' work is

satisfying. Based on the interview results above, it can be concluded that the leadership style of the current principal is democratic.

Conditions of School Culture

Another school's cultural value to grow students' good personalities and performances who are ready to compete in a global setting is Nine Core Values. It contains accountability, cooperation, courage, excellence, empathy, integrity, innovation, patriotism, and mutual respect as well as Seven Habits includes smile, greetings, salutations, politeness, courtesy, prayer, and alms. After graduating from this school, it is hoped that students will become future leaders who are competent and have an international perspective with Pancasila morals. They should be able to compete globally and be ready to face the challenges of globalization. The Dormitory Head admits that when meeting with colleagues, teachers, and all school members and residents, everyone must smile and greet politely one another to build a family atmosphere. The counseling guidance teacher also mentions that the life of the boarding school in the State Senior High School 10 Malang is well-known for its independence that can be reflected from the students' ability for being independent, not only emotional aspects but also behavior. The boarding schools teach students to have discipline and self-awareness in carrying out any activity and later they will understand the benefits of this habituation. The positive school culture encourages all school members to work together based on mutual trust that can invite the participation from all residents to encourage the emergence of new ideas, and provide opportunities for the implementation of the cutting edge of school education that lead to achieving the best results.

The Supporting Factors and Inhibiting Factors for the Implementation of Holistic Education in the State Senior High School 10 Malang

The supporting and inhibiting factors for the implementation of holistic education in the State Senior High School 10 Malang based on the results of observations and interviews are presented in Table 5 below.

Table 5. The supporting and inhibiting factors for the implementation of holistic education in the State Senior High School 10 Malang

The supporting factors	The inhibiting factors
<i>Internal factors</i> Curriculum excellence, Professional Educators, Principal Leadership, Learning Process, Facilities and Infrastructure, School Management.	<i>Internal factors</i> 1. Lack of Dormitory Teachers. The schools, until now, find it difficult to find suitable teachers for boarding schools 2. Teachers have difficulty linking subject matter with holistic educational goals. Several materials are difficult to connect with economic, social, cultural, and environmental aspects. Moreover, preparing collaborative learning lesson plans and adjusting to student characteristics is never been an easy job
<i>External factors</i> 1. Support from the Mayor and Head of Education Agency in implementing the 21st Century Holistic Education in the State Senior High School 10 in the form of policies and funds. 2. Partnership with Sampoerna Foundation, Pertamina, and Astra. 3. Good learning condition 4. Education policies that support the implementation of education	<i>External factors</i> High school operation costs where each student is calculated to require an operational cost of IDR 25 million per year. As a public school with relatively high operational costs, of course, it needs a large fund if the scholarship program consists of 450 students for the grades of X, XI, and XII. The state senior high school 10 Malang, in partnership with the Sampoerna Foundation and receiving financial support from the Malang city government, can provide access to quality boarding education services for children from disadvantaged families. however when Sampoerna Foundation as a school partner supporting the 21st century holistic education implementation at the school stopped funding support, many school programs that had been held were trimmed due to limited funding constraints.

Discussion

The research findings show that the State Senior High School 10 Malang as a boarding high school implements the 21st-century holistic education according to the concept from Dewantara (1977) combined with the concept of the United Nations Educational, Scientific and Cultural Organization (UNESCO) education. The 21st-century holistic education implemented at the school refers to an education that develops all individual potential in a fun, democratic, and humanist learning atmosphere by integrating 4H: Head (intellectual), Heart (emotional, social, and spiritual), Hand (skills), and Healthy through experience and interaction with the environment and society. Dewantara defines

education as an effort to advance character (inner strength, character), mind (intellectual), and children's body (Dewantara, 1977). This statement means that education is a holistic and integrative process. The development of various human dimensions of children must be handled sustainably and involve the synergy of parents, teachers, schools, and the community.

The holistic education in this school is not only developed by school principals, teachers, and educational staff but also involves students' organizations (Musfah, 2012). This finding is supported by Ushuludin et al. (2019), which states that the organizational structure is built by five elements, specialization of activities, standardization of activities, coordination of activities, centralization, and decentralization of decision making, and size of work units. The 21st-century holistic education model implemented in this school combines the education concept from Ki Hadjar Dewantara and the United Nations Educational, Scientific and Cultural Organization (UNESCO). Holistic education requires a systemic and comprehensive approach among the elements that cannot be separated either in a conceptual setting or a school process and program (Neves, 2009). It proves that in holistic education practice, we must pay attention to the synergy between roles and aspects related to the learning process (Mahmoudi et al., 2012). It is in line with Forbes et al. (2004), regarding the goals of education which are to optimally develop the students' potential.

By combining the concepts from Dewantara (1977) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) education, the concept of holistic education implemented in the State Senior High School 10 Malang aims to prepare for the current generation to have intellectual, spiritual, emotional, social, kinesthetic, artistic, and other required skills to face the challenges of the 21st century (creativity, communication, collaboration, and critical thinking). This goal becomes the basis for directing and facilitating the learning process to produce a generation that is smart, healthy, and skillful as well as having character and leadership skills.

Students must be equipped with 21st century skills to be ready to adapt to prioritizing professional, good social values. The concept of 21st-century holistic education in boarding high schools is a paradigm shift from standardized education to education based on individual uniqueness. Through the program Academic, Leadership, Extracurricular, Youth Entrepreneurship, and Environment (ALEYE), this school continues to strive to make innovations that can be used as the 21st-century learning model for boarding schools. The school has successfully developed various activities that support students' readiness to face the current global challenges.

The interesting thing about the program academic, leadership, extracurricular, youth entrepreneurship, and environment are the various activities that work in synergetic flow between one activity and another. As a boarding high school, this school applies the programs to build students' character both in the dormitory and the school including religious character, discipline, leadership, nationalism, entrepreneurship, and environment care (Sutarman et al., 2017). In Indonesia, the existence of the boarding system has become a new trend in education. Many parents tend to entrust their children to boarding schools since they believe that this system offers a better education process. By living in boarding schools, they hope that their children can minimalize and avoid negative influences such as drugs, juvenile delinquency, and violence that can lead to criminal acts.

The existence of dormitory as students' residences has certain social functions related to the broader education and learning process. If managed properly and appropriately, dormitories can become an effective means of building beneficial school culture. It is suitable for sociocultural theory which states that culture and education are inseparable because they have a close relationship. Education and culture express at the same level called values (Hermino & Arifin, 2020). This theory emphasizes the social context in which the development of social interactions that affects children's thinking and behavior. Children's thinking skills are getting better when involved in specific cultural activities, such as family events, peer interactions, and community activities (Saw, 2013).

Based on observations and interviews, the implementation of school programs that implement the 21st century Holistic Education is strongly influenced by the school culture. The dominant school culture that is trained and fostered among students, such as religion, teamwork, leadership, nationalism, entrepreneurship, and environment care. It supports the concept from Dewantara (1977) that education is an inseparable part of the culture. Education must be based on a dynamic culture and experience continuous adaptation. The success of schools in implementing holistic education is supported by good services, expansion, and equal distribution of opportunities for every citizen to obtain qualified education (Peter et al., 2010). These programs are performed through learning by doing, learning by experience, CTL (Contextual Teaching and Learning), and learning based on multiple intelligence (Rubiyanto & Haryanto, 2010). The school facilitates students to develop their talents or interests in various fields. The above findings are also supported by the research results from Nadhim (2014) that the Youth Entrepreneurship Program (YEP) is one of the programs at the State Senior High School 10 Malang which aims at enhancing students' entrepreneurial capacity, as well as preparing the younger generation to build the nation's economy.

There are several challenges and obstacles to optimally implement the holistic education model that requires a synergistic role (Widarti et al., 2014). Based on the results of observations and interviews, it is revealed the supporting aspects of the internal and external factors. First of all, few teachers from teacher training institutes who are specifically equipped with the competency of boarding school teaching. During this research project, the schools still lacked teachers who lived and taught students in the dormitories. Unfortunately, there are no teacher training

institutes that particularly offer a study program for prospective teachers in boarding schools. It makes the school conducting their training to prepare the teachers based on the school background. The subject teachers are only tasked to teach their course, while parenting teachers perform their duties separately. Ideally, these two competencies should be inherent in boarding schools to avoid disputes between two parties (Saw, 2013).

A study conducted by Bush and Coleman (2012) states that progress in improving the education quality of schools is highly dependent on school leaders. Leadership will be able to control any value system and practical ideas. School principals should be able to direct and motivate school members and other involved parties such as teachers, staff, students, parents, and the community to work together to realize the school goals (Sergiovanni, 2003). Based on this, leaders in the education field must be responsible to create an organizational culture that can raise active participation from all parties within the teaching and learning process. The efforts to implement the 21st-century holistic education in the State Senior High School 10 Malang also require effective principal leadership that is appropriate to the current context, especially the followers' characteristics, and abilities.

Conclusion

Based on the findings of the study, it can be concluded the implementation of holistic education in the 21st century is strongly influenced by the conditions of learning, which is a learning situation that can result in a change in behavior (performance) in a person after he is placed in that situation. The condition of learning is very much influenced by the family environment and the dormitory environment, the school environment. The 21st-century holistic education model which is implemented in the State Senior High School 10 Malang is based on Dewantara's (1977) educational ideas combined with the UNESCO concept through the program Academic, Leadership, Extracurricular, Youth Entrepreneurship, and Environment (ALEYE). The supporting factors in the implementation of holistic education are curriculum, professional teachers, principal leadership, learning process, facilities and infrastructure, school management, three education centers, and school culture. Meanwhile, the inhibiting factors cover the lack of boarding teachers and high operational costs.

Recommendations

The suggestions that can be put forward based on the research findings are that this study can be used as a reference for teachers who try to apply the concept of holistic education in boarding high schools. The concept of the 21st-century education with the program Academic, Leadership, Extracurricular, Youth Entrepreneurship, and Environment (ALEYE) highly recommended to be implemented in other regions. Also, these results are beneficial to be used as consideration and input for school principals, heads of city/district and provincial education offices, mayors/regents and governors as well as the Ministry of Education and Culture to determine the policies regarding the application of holistic education now or in future to realize the equal access of education to the entire children and succeed education for all program. Recommendations based on the results of this study provide empirical information for future researchers to develop a more operational model of holistic education based on school culture. A good school culture will effectively produce the best performance for each individual, workgroup/unit, and school as an institution, and become synergistic relationship among those three levels. School culture is expected to enhance school quality, school performance and life quality which are expected to have healthy, dynamic or active, positive and professional characteristics.

Limitations

There are several limitations in this study. First of all, the application of holistic education in the State Senior High School 10 Malang has yet to reach the provision of further guidance on teacher competence towards the existing obstacles. Secondly, this research is only conducted at one high school level, so the results of this study cannot be generalized to other populations with different characteristics.

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