The 21st Century Life Skills-Based Education Implementation at the Non-Formal Education Institution

Iis Prasetyo^{1*}, Yoyon Suryono¹, Sachin Gupta²

¹Universitas Negeri Yogyakarta, Indonesia ²Mohanlal Sukhadia University, India *Email: iis.prasetyo@uny.ac.id

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Abstract. Life skills education basically aims to improve the quality of human resources to overcome various problems in their daily lives in the era of the 21st century. This study was aimed to describe the non-formal education institution managers' efforts to implement the 21st-century life skills education. The researcher employed the quantitative approach with a survey research design in Yogyakarta City and Sleman District. The respondents were non-formal education institution managers. The data were collected using questionnaires and analyzed using the quantitative analysis method. The results of the study show that the implementation of 21st-century life skills education is still limited to the knowledge and hard skill developments. The unexplored materials include thinking skills which consist of conceptual thinking, creativity, innovation, problem-solving, critical thinking, decision-making, and metacognition. The novelty of this research is the findings in this study provide a more detailed description of the weaknesses of non-formal education institutions in providing life skills education.

Key words: 21st century lifeskills, nonformal education, skills development, training

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INTRODUCTION

The role of education in fostering economic growth and sustainable development has, therefore, been reinforced with particular attention to its link to the labor market, in part to create knowledge and a highly skilled workforce to ensure economic competitiveness in a global economy characterized by flexibilization and deregulation. At the same time, its role in facilitating social cohesion and social justice remains pertinent, affecting the relationship among diversity, inclusion, and citizenship (Buchert, 2014)

Life skills education is basically an attempt to build the human capacity to deal with problems and opportunities that arise in daily lives. Life skills education is needed and urgent to be implemented in Indonesia because the content of the curriculum in Indonesia tends to strengthen academic theoretical abilities (academic skills) (Shaumi., 2015)

Life skills are not always interpreted as working skills, but they are regarded as prominent skills in facing increasingly complex life challenges. The same thing was confirmed by WHO (World Health Organization) in 1999, which confirmed that:

Life skills are abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life (WHO, 1999)

Life skills have a broad meaning from employability skills and vocational skills. Both are part of the life skills program. Thus skills can be expressed as

skills for life. Life, not only having certain abilities (vocational jobs), but must have basic functional abilities such as reading, writing, counting, formulating, and solving problems managing resources, working in teams, continuing to learn on the spot using technology (Satori, 2002)

Life skills can be divided into five categories: (1) self-awareness skills and personal skills or personal skills; (2) rational thinking skills or thinking skills; (3) social skills or social skills; (4) Academic skills or academic skills; and (5) vocational skills or vocational skills (Sanjaya, 2008) Bruner, 1960; (Hidayat, 2013)

In the 21st century, education is becoming increasingly important to ensure that someone has the skills to learn, innovate, use technology, and information media skills, and can work and survive using life skills (Gates, Bill, 1996); (Ormiston, 2011) (Murti Kuntari Eri, 2015). Technical skills are not enough to deal with challenges, particularly in world business competitions which are getting tighter. Product quality is no longer the main value for consumers. More values such as service quality, satisfaction, speed, creativity, and flexibility can be determinants of consumer buying behaviors. Similarly, in everyday life, life skills equip humans to be able to live in society and benefit other people.

Nowadays, life skills have become an important concern in the world. Even in the 21st century, basic life skills standards have been developed by various parties. The attention shows how important

someone's ability is to deal with life, especially in globalization, where rotation and exchange among people around the world can occur quickly. Without adequate skills, someone will be knocked out from increasingly fierce competitions. The current strong focus on youth must be understood in the context of the rapid worldwide changes we are experiencing due to globalization and the concern for the autonomy of the individual that is a central feature of modernity, democracy, and the knowledge economy (Lauder, H., Brown, P., Dillabough, J.-A., & Halsey, 2006)

The advancement of technology without life skills impacts not optimal benefits. The timeless and borderless interactions among humans, on the one hand, bring benefits to those who can see the opportunities. However, they can be a terrible disaster for people who are not skillful and prepared for the situation. These disasters can be in the form of poverty, ignorance, and backwardness as a result of low access to various sources of information, economy, and politics. About these, studies on life skills models, particularly the 21st-century life skills, are important to be conducted and developed by the owned potential.

The 21st-century skills are defined as a broad set of knowledge, skills, work habits, and character traits that are believed to be critically important to success in today's world, particularly in collegiate programs and contemporary careers and workplaces, can be applied in all academic subject areas and all educational, career, and civic settings throughout student's life (Moyer, 2016) (Darin Jan C. Tindowen, John Michael Bassig, 2017).

The 21st century is an information age. In this century, information throughout the world can be accessed without constraints of time and border. This era requires humans with reliable life skills so that they can survive in globalization. One of the life skill models is the Macmillan model – a model developed by the Macmillan organization in developing English language skills. (Kagan, 2014), in his paper, states that people are currently facing a life skill crisis. Furthermore, the mentioned crisis is due to two trends: information explosion and change rate. Information explosion causes an impact on one's ability to memorize new facts which are not valuable or meaningful rather than using the ability to understand, analyze, regulate, implement, evaluate, and create new information. Furthermore, the change rate is related to a condition where most students who enter a school will work in an uncreated work category, and they will work using undiscovered technology. The crisis can be conceptualized as an imbalance between supply and demand. The needs to always develop academic achievements are more dominant than the encouragement of life skills. Moreover, life skills are categorized into four categories that must be possessed and performed by communities (university students, educators, students, workers, and others), namely:

Thinking Skills: creativity or imagination, problem-solving, decision making, self-knowledge, critical thinking, accessing and analyzing information

(Kagan, 2014) proposes some claims based on Bloom's taxonomy. The claims are elaborated as follows: 'Higher-level' skills are based on 'lower-level' skills, 'Higher-level' skills are more complex than 'lower-level' skills. Memory is a place. The idea illustrates that thinking skills always start from possessing the most basic skills because the higher the level of possessed skills, the more complex the thinking skills will be. Learning Skills: ICT, agility, and adaptability, receiving and giving feedback, handling criticism, innovation or exploration, and learner autonomy. The concept used by (Kagan, 2014) in shaping students' skills is cooperative learning - a strategy that emphasizes team works in regular cooperation. The implementation of cooperative learning uses the principles that have been developed based on Positive Interdependence, Individual. Accountability, Equal Participation, and Simultaneous Interaction (PIES). The implementation of the concepts and principles is a way to develop several skills according to needs. These skills include information and communication technology (ICT), agility and adaptability, receiving and giving feedback, handling criticism, innovation/exploration, and learner autonomy.

Working Skills: communication/ collaboration, cooperation, people management, time management, organization, negotiation, and leading by influence. These skills include communication/collaboration, cooperation, people management, time management, organization, and negotiation. Based on the concept proposed by (Kagan, 2014), the skills development is done through methods namely; Round Robin and Round Table. The students in small groups take turns giving their best contribution. The same structure works well to equate participation in cooperative learning teams, so the Round Robin method is a simple way to manage the turn-taking. The Round Table is a natural extension; every student, in turn, writes something on a piece of paper.

Social Skills: citizenship, social responsibility, cultural awareness, social development, respecting diversity, and networking. Social skills are also formed based on the concepts, principles, and methods developed by (Kagan, 2014). Since social skills are embedded in a teaching and learning process, they are not explicitly taught. In the Round Table structure, no role or grouping is needed to equate participation because everyone contributes equally. Although the teacher does not assign roles or process social skills, students' social skills are indirectly fos-

tered. For example, students initiate to present their works, without being asked by the teacher. Social skills include citizenship, social responsibility, cultural awareness, social development, respecting diversity, and networking.

Based on the problem formulated above, this study aims to describe the non-formal education institution managers' efforts to implement the 21st-century life skills education in their institution.

METHODS

This quantitative study employed a survey design. The survey provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of the population. It includes cross-sectional and longitudinal studies using a questionnaire or structured interviews for data collection. (Creswell, 2008) .

The research data were collected through questionnaires distributed to PNF unit managers. The questionnaires were needed in the data collection or variable measurement. They were written based on the formulation of the research problems. The research objective was to describe the institutional conditions of non-formal education institutions.

This survey research was conducted to identify the current situation related to the implementation of 21st-century life skills education by the non-formal education institutions in *Daerah Istimewa Yogyakarta*.

The data were obtained from 11 non-formal educational institutions in Sleman Regency and Yogyakarta City. The respondent in this study were managers, staff and students from each of the surveyed institutions.

The research data are the answers of a checklist survey related to the K-SAVE variable in the implementation of the life skills education program. The data were analyzed using descriptive analysis in the form of the percentage of the answers given by the respondents.

RESULTS AND DISCUSSIONS

The 21st Century Life Skills Education Implementation

The identification of life skills education facilitation in the non-formal education institution is based on the KSAVE model. KSAVE stands for Knowledge, Skills, Attitude, Values, and Ethics. This model uses a framework for 21st-century skills. In determining the skills, (Binkley, M., 2009) through the ATC21S project classify KSAVE into four cate-

gories that form the ten 21st century skills. The categories are ways of thinking, ways of working, tools for working, and Living in the World.

Ways of thinking include 1) creativity and innovation, 2) critical thinking, problem-solving, and decision making, and 3) metacognitive skills. Ways of working include 1) Communication and 2) collaboration. Then, tools of working consist of 1) information literacy, and 2) technology literacy. Whereas Living in the World includes: 1) local and global communities, 2) life and career, and 3) personal and social responsibilities including, cultural awareness and competence.

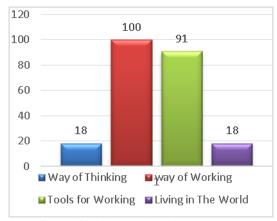


Figure 1. Lifeskills Education Implementation Viewed In KSAVE Model Categories

The results showed that very few non-formal educational institutions provide skills in thinking and skills to live in the community. Most non-formal educational institutions focus more on how to provide skills for work and how to use the equipment needed for work. This condition can be seen in the table below. Related to Buchert(2014)stated that learning outcomes in life skills education, include both learners' expected specific learning outcomes or cognitive skills (in e.g. literacy and numeracy) and expected behavior and attitudes or non-cognitive skills (often also termed psychomotor skills or soft skills). Life skills or skills for life are perhaps captured most simply and deeply in the four pillars of learning. Life skills in this interpretation emphasize both wholeperson development and a life-long learning perspective, learning throughout life.

Figure one illustrates that currently, educational institutions are still more focused on efforts to improve hard skills compared to soft skills. Whereas in the 21st-century, one of the skills that determine one's success is the soft skills that are mastered.



Figure 2. KSAVE Model Lifeskills Implementation

Figure 2 shows that in developing competency, most non-formal educational institutions focus on skills at work and how to use tools at work while learning that can improve thinking skills and how to be able to live in a community environment is still very low. Thinking skills include digging and finding information skills, processing, and decision-making skills, and creative life problem-solving skills and community life or social skills include communication skills, skills that work together to promote harmonious relationships between one person and another (Wahyudin, et al, 2017).

The implementation of knowledge, skills and attitude, values, and ethics is still dominated by knowledge and skills-based learning. This condition illustrates that learning based on strengthening competencies related to attitude, values, and ethics has received very little attention from institutional managers. Only a small part of the Institute has facilitated learning to improve thinking skills.

Students prepared for twenty-first-century life must be able to work through complex interdependencies, synthesizing from many varied sources. They should learn from experience and be able to make productive connections between theory and practice. Integrative teaching approaches must foster students' capacity to begin making connections for themselves. Both fully integrated learning and learning with a purpose are fundamental elements of the non-formal learning process (Moyer, 2016)

The research result related to the research conducted by (Moyer, 2016) that showed: particular nonformal learning experience was not strong in engaging students in creativity and innovation. Even though non-formal education activities should be able to encourage learning experiences that can foster the integration of skills and knowledge to solve problems, encourage students to be active, autonomous, independent decision-makers, support collaborative knowledge construction, provide integrated activities in the context of an authentic learning environment.

It is also related to the research conducted by(Darin Jan C. Tindowen, John Michael Bassig, 2017). His research findings indicated that ALS learners are not yet ready to face the globalized world because their attainment of the required 21st-century skills is low, except for the local connection skill as this is the only skill that ALS learners already acquired.

Learning in good life skills education should be able to facilitate social interaction inter-group communication is very helpful for students to solve various problems. Communication is more often with peers or group friends than with educators (Tristanti, 2018)). Besides that, the institution must also facilitate the learning process that supports how students learn how to learn. Learning to learn is not the only competence that learners need in their toolkit for 21st-century life. Indeed, "21st-century" competencies, including creativity, problem-solving, leadership, empathy, and communication, to name just a few, are increasingly in demand in the context of rapidly changing societies and labor markets (World Economic Forum, 2018) . McKinsey Global Institute predicts that demand among employers for "social and emotional skills" such as negotiation, leadership, and initiative-taking, will rise by 22% by 2030 (McKinsey Global Institute, 2018) .(Choueiri, 2012) reveal that education with innovative approaches and leadership skills can anticipate changes and embrace human quality, and guide students to have holistic thinking. The research conducted at the University of Lebanon can play an important role in reforming students from an outdated school system. The system focuses on the teaching of critical thinking only to solve problems in the past, and it does not prepare the students to survive in the future. Furthermore, the results of his research provide an understanding of a new design process that allows the teacher and students to apply creative and critical thinking that is not bounded to the context, encouraging them to proactively accept revolutions.

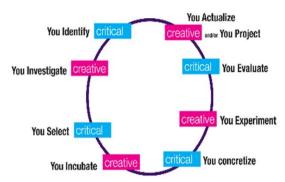


Figure 3. Design Flow Process

The design process includes creative and critical thinking. Creative thinking flows freely, while critical

thinking is rational. When critical thinking leads, the creative one is driven to innovative knowledge. Furthermore, creative thinking leads and critical evaluation can be the solution to be applied. Both complete each other; this variation between them produces a balance that can be a new and effective solution. The design is illustrated as follows:

The stages of a clearly mapped process become important learning and evaluation tools that ensure innovative problem-solving skills to deal with any problem. This study explores the implementation of the design process in an academic program that is still considered unexplored even though it has high potential. This potential is not only relevant to students who can learn important thinking methods but also to teachers who can use it as teaching instruments as well as evaluation criteria.

Life Skills Education Implementation Viewed from Learning Activities and Program Facilities

Further data that can be revealed in this research are related to learning activities in life skills education programs conducted by non-formal educational institutions. Some things of concern are the availability of curriculum, supporting facilities, learning methods, instructors, media, and a supportive environment.

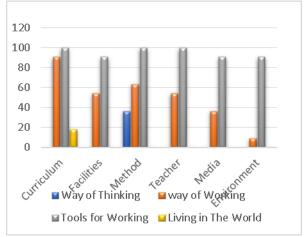


Figure 4. Life Skills Education Implementation Viewed from Learning Activities and Program Facilities

The results of the data analysis above show that among institutions implementing the program, life skills education focuses on competencies related to works and equipment. Only a few institutions have begun to raise awareness of the program participants in changing the way they think and how they utilize the skills as the members of a community. This can be noticed from the structure of the curriculum which contains only the required work competencies. In the dimension of the curriculum, the curriculum is the

core of education or core subjects (Sukmadinata, 1997) (Sudrajat, 2008). In this context, (Oliva, 1992) states the following:

Curriculum as that which is taught, and instruction as the means used to teach that which is taught. Even more simply curriculum can be conceived as the "what" and instruction as the "how"

Curriculum management It will determine the success of the curriculum in achieving the objectives, or between the intended curriculum and the actual curriculum (McNeil, 2006). About the implementation of the curriculum and the objectives of the curriculum which are also competency-based, basically, returning education to its nature, namely developing the potential of students to face its role in the future (Machali, 2014).

(Binkley, M., 2009) through the ATC21S project explain that knowledge includes all specific references or understanding of each skill from the ten skills mentioned. The skills include abilities, competencies, and processes formed in the curriculum framework in developing a learning community. Meanwhile, attitudes, values, and ethics lead to behaviors and agility. They are performed by students about the ten 21st-century skills.

As noted, the research evidence is conclusive: inquiry, design, and collaborative approaches to learning build a powerful combination of content understanding, basic skills, and applied 21st-century skills. However, the research also shows that these methods will require changes in curriculum, instruction, assessment practices, the professional development of teachers, and the learning environments that support 21st-century learning (Bernie Trilling and Charles Fadel., 2009)

The identification of various problems in implementing life skills in the 21st century is carried out through learning activities which are supported by the program facilities. Some components that are used as the basis in the identification are curriculum, facilities, methods, educators, media, and evaluation. The curriculum as the main tool in education is an important part of a program/facilitation. The curriculum contains various components related to the materials and competencies that must be mastered by students. The implementation of life skill-based learning requires a change in school culture, namely that the education process requires the support of a school culture that encourages the development of a "learning culture" so that in schools the principles are created: learning is not for school, but learning to live; studying is not for exams, but learning to solve life's problems (Hendrizal, 2013) (Sumarsono, 2015)

The learning methods include all learning activities performed by the students that have been designed by the program organizers. The method is

used by the teacher to transfer the knowledge to the students. In teaching and learning activities a teacher often teaches materials, which are not stated in the curriculum, such as values, work ethic, and norms, because such materials are considered important for students. Teachers as the main actors play an important role in the success of a learning process. The teacher's ability to present, convey, transfer, and simulate a teaching material will have an impact on the students' learning outcomes. The teacher's creativity is needed to create every classroom activity so that the learning atmosphere can be more alive and dynamic.

In the 21st century; the concept of lifelong learning not only works to achieve present targets but also to impart future long-term values and attitudes to learning. For this purpose; it is necessary that curriculums deal with life skills more and the link between school and life and the community between industry and society have to be widener (Melek Derimel, 2009)

WHO has defined life skills as the ability to adapt and behave positively. The skills also allow one to adapt effectively to the demands and challenges of everyday life. Life skills are classified into the following categories:

Thinking skills: Thinking skills are the skills that enhance the logical faculty of the brain using analytical ability, thinking creatively and critically, and developing problem-solving skills, and improving decision-making abilities.

Social skills: Social skills include interpersonal skills, communication skills, leadership skills, management skills, advocacy skills, cooperation, and team-building skills, etc.

Emotional skills: Emotional skills, involving, knowing, and being comfortable with oneself. Thus, self-management, including managing/coping with feelings, emotions, stress, and resisting peer and family pressure(Prajapati, R. Sharma, B. & Sharma, 2017).

Therefore, the methods applied to develop life skills are expected to be able to analyze the individual needs and to focus more on what is needed, what skills are possessed, how development efforts can be carried out. In the development of life skills education, there are basic skills which are set as a goal in solving any problems and challenges of daily life.

Learning facilities such as classrooms, practicum equipment, and materials are factors supporting the success of a program. Without adequate facilities, it is impossible for a program or learning process to achieve the expected goal. The competencies and materials without supporting facilities cannot be transferred and delivered properly by the teachers.

Media also have a very important role in the learning process; effective media will provide a positive effect on the classroom situation and students' understanding of the material presented. A planned program will always be equipped with adequate and various learning media for each competency taught. Besides, the media can also be used to convey supplementary values and materials that are not stated in the curriculum.

The last component is evaluation, which is a mechanism to find out whether a program is running according to plans or not. More importantly, evaluation is done to find out the achievements of the program. Also, an evaluation is conducted to determine the achievement of goals. It can take the form of tests, observation guidelines, questionnaires, and so on where the function is to know the students' learning outcomes and the efficiency of the learning process.

CONCLUSION

Based on the results of the research, the following conclusions can be drawn: (1) efforts to implement the 21st-century life skills education program is limited to the transfer of knowledge and skills, and (2) the learning materials that are not well explored include thinking skills such as conceptual thinking, creativity, innovation, problem-solving, critical thinking, decision-making, and metacognition. These problems are worsened by the lack of learning facilities. The other effort to be taken into account in facilitating the life skills education program is the development of the learning instruments consisting of curriculum, facilities, methods, educators, media, and evaluation.

The problems that arise in facilitating the 21st-century life skills education program must be overcome by improving the curriculum, teaching facilities, teaching methods, instructional media, competent teachers, and evaluation tools. Managers need to prioritize the development of teaching instruments for all aspects of life skills so that the skills acquired by the students are more comprehensive. Therefore, students are able to face various kinds of challenges and obstacles in implementing their working skills in the real world.

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