Is it Beneficial Exposing Students to Seniors?

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Abstract—**The population of elderly increases significantly, especially in Indonesia. This condition has driven the government to initiate age-friendly city and community. Based on the study on age-friendly city conducted by SurveyMETER and CAS UI (2013), most dimensions of age-friendly city proposed by WHO have not been fulfilled yet, especially concerning on 'respect and social inclusion'. Thus, SurveyMETER initiates a pilot Program Cerita Kehidupan Lanjut Usia (life story of older person program), a creative and service program involving 168 students from 7 schools in Bantul, D.I. Yogyakarta. The program aims at fulfilling the 'respect and social inclusion' dimension especially on 'integrating knowledge about ageing into Bahasa Indonesia and or other language subjects'. In the program, the students are required to visit and interact with the elderly and at the end, they have to express their perspective towards elderly elderly and the values they learned from the visit in the form of an essay. This study investigates the correlationimpact of Program Cerita Kehidupan Lanjut Usia (life story of older person program) on the students' respect to older person. The result shows that the program increases students' knowledge, attitudes, and perception toward the elderlyelderly.**

Keywords: Elderly; age-friendly city; education; character.

I.   INTRODUCTION

The global population of elderly increases continuously, especially in developing countries. As reported by [1], Indonesia, as one of developing countries, will face bonus demography where population of elderly (50 - 64 and > 65 years) increases significantly during 2010 - 2035. Further, [2] highlight that the population of elderly in Indonesia in 2050 will increase significantly compared to other Asian countries and global. As stated in the Act Number 13 Year 1998 concerning on The Welfare of Elderly, elderly is categorized into two, potential and non-potential. The first refers to the people aged > 60 years who are still capable for earning income and the last refers to those are incapable for earning income and depending on others for living. It can be seen that some older persons are still active in the community. Based on this evidence, Indonesia has to accommodate them through creating age-friendly city and community where elderly could fulfill their needs and engages actively in the community.

Referring to PP No 43/2004 on the Welfare of the Elderly, Indonesian government has started preparing age-friendly city through several ways, namely: highlighting issues on elderly as one of priorities in development, increasing the budget for age-friendly program and infrastructure, providing job opportunities for potential elderly, improving health services for elderly, and providing green and open spaces for elderly to interact with others. It is in line with the dimensions of age-friendly city proposed by WHO [3].

The dimensions of age friendly city proposed by WHO [3] cover (a) outdoor spaces and building, (b) transportation, (c) housing, (d) social participation, (e) respect and social inclusion, (f) civic participation and employment, (g) communication and information, and (h) community support and health services. It means that age-friendly city in Indonesia needs to meet that those dimensions. However, a study on Age-friendly city conducted by SurveyMETER and CAS UI in 2013 involving 14 cities in Indonesia showed that most dimensions of age-friendly city proposed by WHO have not been fulfilled yet. The details result of each dimension can be seen in figure 1. Indeed, sSome improvements are needed to realize the age-friendly city in Indonesia, especially on 'respect and social inclusion' dimension for its first indicator, 'Learning about aging and older people is included in primary and secondary school curricula.' The details result of each dimension can be seen in figure 1.
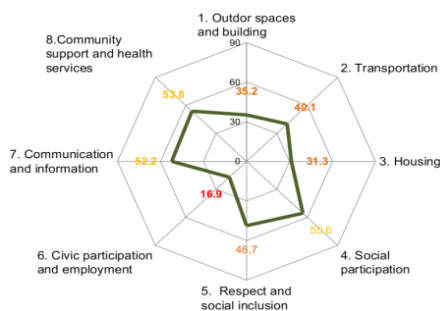
Fig. 1. The Result of age-friendly city assessment study (SurveyMETER and CAS UI, 2013)

Referring to the Ministry of Social Regulation Number 4 Year 2017 concerning on Guidelines for the Development of Age-friendly City, especially Article 10, the 'respect and social inclusion' covers several indicators namely (a) attitudes and behaviour for respecting elderly, (b) inter-generational interaction, and (c) integrating ageing values into both formal and non-formal education. It suggests that both formal and non-formal education institutions insert ageing values into the school subject. In addition, the first and second indicators of 'respect and social inclusion' are in line with the 'Penguatan Pendidikan Karakater' (Strengthening Character Education) or PPK initiated by Ministry of Education and Culture.

PPK is a program implemented in schools to strengthen students' character through integrating ethic, aesthetic, literacy, and kinaesthetic and involving public like other schools, families, and communities[4]. In more detail, this program is integrated in the National Movement of Mental Revolution (GNRM), that is changing the way of thinking, behaving and acting better. The main values of PPK are religious, nationalist, independent, mutual cooperation, and integrity. Respecting older person is one of integrity sub-value. These values are to be instilled and practiced through the national education system so that they are known, understood, and applied in life both in school and society.

SurveyMETER, an independent research institution that conducts several studies on ageing, has been actively developing evidence-based solution on ageing. In this case, SurveyMETER focuses on developing solution for the one indicator of 'respect and social inclusion' dimension as proposed by WHO[3], schools to allow and encourage students to learn about older person and involve older person in school activities'. Especially for the first part of the indicator, learning about ageing and older people is included in primary and secondary school curricula' through Program Cerita Kehidupan Lanjut Usia (life story of older person). Students are given opportunities to learn about ageing and older person actively and independently. This study aims to investigate the impact of 'Program Cerita Kehidupan Lanjut Usia' (life story of older person) on students' knowledge, attitudes, and perception to the elderly.

II.   LITERATURE REVIEW

A.   Older Person Quality of Life

Recently, the Quality of live of the elderly or orlder person become a main concern. WHI defines Quality of Life (QOL) as 'individuals' perception of their position in life in the context of the culture and value system which they live and in relation to their goals, expectations, standards, and concerns [5]. Further,WHO states that QOL covers physical and mental health, and social functioning[5].

Physical and mental health. Kawachi and Berkman stated that there is a long list of physical health conditions which are very common in older people but due to the medical advances, older people now could access medical tools and services to deal with this condition[6]. Meanwhile, as people age, their mental health needs also change. Ageing brings with it a new phase of life with challenges which often lead people to feel burdened, stressed and helpless at times. Further, Beard and Bloom highlight that older people might encounter several health problems that affect their activity, physically and psychologically[7]. Hambleton, Keeling, and McKenzie highlight that 1 out of 5 elderly have psychological health concerns which are serious enough to require intervention[8]. They need assistance and support in coping. Therefore, it is important to prepare health providers and societies to meet the specific needs of elderly. WHO proposes ways in coping with older people's physical and mental health [5]. It includes designing sustainable policies on long-term and palliative care, training for health care workers in providing care for older people, developing age-friendly services and settings, adequate housing through supportive housing policy, and social support for older people.

The social functioning. Most experts argue that seniors who are isolated and lonely have shorter lives and they are at greater risk for dementia. Thomas believes that through helping and encouraging older people maintain their social functions and stay connected with community like volunteering in community or charity organization may prevent the risk[9]. However, there is also another way to keep them stay connected with the community that is promoting social participation [10].

A number of studies shows that social participation is associated with better mental and physical health. Isaac, Stewart, Artero, Ancelin, and Ritchie found that among older adults with depression, those who were highly socially active were over 2.5 times more likely to have improvements in their depressive symptoms 2 years later than those with low social activity[11]. James, Wilson, Barnes, and Bennett found that the rate of cognitive decline was reduced by an average of 70% in older adults who were frequently socially active compared to those who were infrequently socially active over an average of 5 years [12]. Further, older adults who participated on a daily or weekly basis in social activity had a 40% reduced risk of developing dementia compared those who were not socially engaged [13]. Furthermore, engaging older people in society and their communities have two two-fold benefits [14]. First, there are advantages for the older person: keeping mentally and socially active and bolstering their health and well-being by mitigating the risk of loneliness and isolation in old age. Second, there are benefits for society as some older people have a vast amount of skills, knowledge and life experience, which can be used for the benefit of their communities, enhancing and building community capacity.

In line with the Ministry of Social Regulation Number 4 Year 2017 on guidelines of the Development of Age-friendly City which highlights inter-generational interaction, George proposed inter-generational interaction in education setting for utilizing older people's persons' skills, knowledge, and experience[10]. In addition, Gaggioli et al argue that the inter-generational interaction between older people and young generation like students is beneficial. The students will have experiences that cannot be gained in the classrooms setting only[15]. Meanwhile, the older people will increase their social interaction and have activities which help them alleviating feeling of loneliness and being isolated that affected their quality of life. In conclusion, initiating inter-generational interaction is beneficial both for the students and older peoplepersons.

B. Age-friendly city and community

In order to support governments in developing and strengthening policies to improve older person quality of life, WHO released a Policy Framework on Active Ageing in 2002. Further, WHO define active aging as maximizing opportunities for health, participation, and security in order to improve the quality of life as people. In this report, the World Health Organization maps out what countries can do to modify their financing systems so they can move more quickly towards this goal - universal coverage - and sustain the gains that have been achieved The report builds on new research and lessons learnt from country experience. It provides an action agenda for countries at all stages of development and proposes ways that the international community can better support efforts in low income countries to achieve universal coverage and improve health outcomes [16]. This framework has been used by WHO as a basis for developing guidelines to make primary health care services more age-friendly as older people face new challenges that age brings.

In age-friendly city, policies, services, and structures related to physical and social environment have to be designed to support older people to age actively. It means to live in security, enjoy good health and continue to participate in society. Public facilities and services have to be accessible to accommodate various level of ability. Therefore, in 2007, WHO released guidelines for age-friendly cities. The guidelines identify eight dimensions of age-friendly city to support older people to age actively. It covers outdoor spaces and public building, transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, community support and health services.

C. Youth attitudes toward older person

A study conducted by Randler, Vollmer, Wilhelm, Flessner, and Hummel (2014) on Attitudes Toward Elderly among German Adolescents examines students' attitudes towards elderly people in Germany. A total of 935 pupils (458 boys, 477 girls) involved in this study. They are from 5th grade – 9th grade[17]. They provide evidence for two underlying latent factors, 'prejudice' and 'appreciation.' The 'prejudice' factor contained prejudices and negative attitudes

towards old people, while the 'appreciation' covers items that were positively related to the elderly. This study found that on average the students valued old people. Further, this study showed a significant influence of gender, grade, and distance to grandparents. Girls valued old people higher than boys. Students living with grandparents in the near vicinity valued old people more than students with their grandparents farther away. This study suggested implementing intergenerational educational programs in primary school and in 5th and 6th grade in Germany through inviting the old people to the school to share their expertise.

Scott, Minichiello, and Browning (1998) evaluated the impact of an education intervention program on the students' knowledge and attitude towards older person people[18]. The study involves students aged 17±18 years from six secondary schools in Melbourne, Australia. It utilized Palmore's Facts on Aging Quiz to assess knowledge about and attitudes towards ageing in a quasi-experimental pre-test and post-test design. The study revealed that the pre-test mean knowledge scores differed significantly between male and female students and across the various schools. Further, the students who had greater contact with grandparents possessed slightly more knowledge. The post-test results showed that the intervention education program only makes a little change in the students' attitude.

Samra, Griffiths, Cox, Conroy, and Knight conducted a systematic review study concerning on medical students' attitudes toward elderly after intervention[19]. They searched articles through a systematic search strategy and after assessment and extraction, 27 studies met the eligibility criteria for their review. In the end, they investigate twenty-seven databases, including Medline, PsychInfo, and Embase. They found that 14 appeared successful in effecting positive attitude change toward older adults after an intervention, and 13 appeared unsuccessful.

Based on the elaboration above, it indicates that intervention may change students' attitude towards older people. Thus, this present study is to investigate whether the intervention made by SurveyMETER through Program Cerita Kehidupan lanjut usia ((life story of older person) gives impacts on students' attitude, behaviour, and perception towards elderly.

III. METHOD

A. The Intervention

Program Cerita Kehidupan Lanjut Usia (life story of older person) is a creativity and service program for children aged 10 - 17 years old (primary and secondary school students) as a form of respect to elderly and in the end, they are required to write elders' life stories. It involved 168 students from 7 schools covering 3 Primary Schools, 2 Junior High Schools, one Senior High School, and one Vocational High School in a sSub-district in Bantul, Yogyakarta, Indonesia. This intervention program was implemented in January- March 2017.

In the process, first, teachers informed the students about Program Cerita Kehidupan Lanjut Usia. It's integrated into

Bahasa Indonesia subject. In this program, the students were required to visit and interact with an elderly. Then, students have to write a story about the elderly. The teachers assisted and monitored the students' writing and to remind the visit to the older person.

Then the students visited and interacted with the elderly 20 - 30 minutes of each visit (three visits in 10 weeks). They were allowed to select any elderly except their own grandparents. During the visit, students were suggested to initiate interaction, observe the elderly' activities, or even help them. The students made notes for important and interesting events they found during the visit. In the end of 10 weeks, the students have to write at least two pages of elders' life stories. The writing was submitted to their teachers.

The Student's writing was assessed by both teacher and SurveyMETER. Some students with highest score in each school level were selected to read their stories accompanied by the elderly in the closing ceremony.

B. The Study

A quasi-experimental pre-test and post-test design was adopted for the study. Prior to the intervention a pre-test questionnaire was distributed to assess students' knowledge, attitudes, and perception to the elderly. Total of 168 students from 7 schools joined the pre-test in December 2016 - January 2017 which depend on the availability of the school. The pre-test was followed by the implementation of program. At the end of the program (the life story submmitted), the same students were again fill in the same questionnaire as the post-test in March-April 2017. The questionnaire was adapted from The National Council for the Elderly (1993). This paper highlights the analysis based on writing score, gender and education level of the post-test and pre-test data.

IV. RESULT AND DISCUSSION

Student's writing score. SurveyMETER set criteria in assessing students writing and applying the criteria strictly. The criteria in assessing the writting covers the originality, readability, technical, and values learned from the stories. The score categorized into three groups: high, moderate, and low. The detail students' writing score in each level of education can be seen in Table 1. The majority of the students got low score, only 12% received high score and 15 % moderate score. The fact across level of education. The primary school students who got a high score were only 11.7%. The students with high score in Junior high, senior and vocational high schools were slightly high or around 14%. Meanwhile, the students who got low score in each education level was quite high and it reached 50% and above. This is an alarm for Indonesian education to improve writing output of the education system.

TABLE 1. THE DISTRIBUTION OF STUDENT'S WRITING SCORE

Score	Level of education			Total
	Primary School	Junior High School	Senior High School & Vocational High School	N=168
High	11.7%	14%	13.9%	12.4%
Moderate	8.8%	14%	27.9%	15.4%
Low	79.4%	71.9%	58.1%	75%

After the "Cerita Kehidupan Lanjut Usia" program, the students with 'high' score improved their knowledge, attitude, and perception towards elderly higher than those who got 'moderate' and 'low' score. It was indicated by the increasing number of students who know about life expectancy and interested in interaction with elderly. Knowledge of life expectancy, prior to the program, there was only 40.9% of students who knew it. In the end of the program, the students who knew about life expectancy increased to 22.7%. However, it did not occur on the students with 'moderate' and 'low' score. Next, in term of attitude, the students with 'high' and 'moderate' score who were interested in interaction with the elderly increased to 13.6% and 7.7% respectively. Further, all students got lower fear or anxiety about growing old after program. It declined 13.7% and 19.2% for students with 'high' and 'moderate' score respectively, while for students in another score group declined 2%. Indeed, the number of students who are willing to help elderly was high prior to the program (91.0% - 92.3%) and after the program it increased 4.5% for the students with high score. The students with 'high' and 'moderate' score who considered that elderly is boring and forbidding declined 7.7% - 13.6% and 3.8% - 4.6% consecutively. Furthermore, the number of students with 'high' score who considered that elderly is demanding and cranky declined 9.1% and 4.6% of each. In addition, the students with 'high' and 'moderate' score who considered that elderly are helpful increased 9.1% - 11.5 % (Table 2). The positive result among student with high and moderate score was likely related with students time spent on interaction and writing as well as deep reflections on the interaction with the older person. It is in line with the result of study conducted by Oliveira et al highlighted the frequency of contacts and high quality of contact with elderly positively influenced children's attitude toward older person [20].

TABLE 2. THE STUDENTS' ATTITUDES TOWARD AGING AND THE ELDERLY BY HIGH AND MODERATE WRITING SCORE GROUP

Knowledge, attitude, and perception	High Score		Moderate Score	
	Baseline N=22	Endline N=22	Baseline N=26	Endline N=26
Knowledge about life expectancy	40.9	63.6	38.5	38.5
Interested in interaction with elderly	86.4	100.0	73.1	80.8
Helping elderly	91.0	95.5	92.3	92.3
Fear/anxiety about growing old	36.4	22.7	23.1	3.9
Older people are:				
Demanding	45.5	36.4	42.3	36.4
Helpful	90.9	100.0	80.8	92.3
Forbidding	77.3	72.7	61.5	57.7
Boring	31.8	18.2	19.2	11.5
Cranky	27.3	22.7	23.1	23.1

Gender. Compared to male students, the number of female students who have knowledge of life expectancy, and who willing to help elders was higher. Prior to the program it was only 33.0% and 89.8% but post of the program increase to 42.1% and 8992.1% respectively. Female students who have fear or anxiety about growing old decline more than male students. Furthermore, after the program female students who considered that elderly was helpful and interested in interaction with elderly was also higher. The number of female students who considered that elderly was demanding, boring, and cranky was more decline. On the other hand, the number of male students who considered that elderly was forbidding was decline more than female students.

TABLE 3. THE STUDENTS' ATTITUDES TOWARD AGING AND THE ELDERLY BY GENDER (%)

Knowledge, attitude, and perception	Female		Male	
	Baseline N=88	Endline N=88	Baseline N=80	Endline N=80
Knowledge about life expectancy	33.0	42.1	47.5	42.5
Interested in interaction with elderly	83.0	88.6	78.8	75.0
Helping elderly	89.8	92.1	72.5	81.3
Fear/anxiety about growing old	33.0	23.9	11.3	8.8
Older people are:				
Demanding	47.7	37.5	36.3	48.8
Helpful	86.4	92.1	88.8	87.5
Forbidding	67.1	67.1	55.0	50.0
Boring	19.3	15.9	18.8	27.5
Cranky	21.6	17.1	22.5	26.3

Level of education. Compared to primary school students, junior or senior high school students significantly improved their knowledge, attitude, and perception towards elders. It can be seen from the increasing number of students who know life expectancy (senior high school: 25.5% - 37.2%). In addition, the number of junior or senior high school students who have fear or anxiety about growing old and considered elders demanding was significantly declined.Percentage fear/anxiety about growing old reported by Junior High School student decline from 35.1 to 15.8 but for Primary School student remain same at 20.6.%. Senior High School and Vocational High School student, perception on older person demanding to reduce from 53.5% to 37.2%.

On the other hand, the number of primary school students who willing to help elders increased. Meanwhile, primary school students who considered elderly forbidding, boring, and cranky were lower than junior or senior high school students,. Primary School students who were reported willing to help elderly rise from 80.8% to 86.8 but for Junior High School, Senior High School, and Vocational High School students were decline. Primary school students who considered elderly forbidding, boring, and cranky were declined from 48,5 to 38.2; from 11.8 to 7.4; from 19.1% to 10.3% meanwhile for the olther level student rise or no change

TABLE 4. THE STUDENTS' ATTITUDES TOWARD AGING AND THE ELDERLY BY LEVEL OF EDUCATION

Knowledge, attitude, and perception	Primary School		Junior High School		Senior High School & Vocational High School	
	Baseline N=68	Endline N=68	Baseline N=57	Endline N=57	Baseline N=43	Endline N=43
Knowledge about life expectancy	41.2	38.2	49.1	50.8	25.5	37.2
Interested in interaction with elderly	82.4	80.9	82.5	85.9	76.7	79.1
Helping elderly	80.8	86.8	95.6	89.5	95.3	83.7
Fear/anxiety about growing old	20.6	20.6	35.1	15.8	9.3	11.6
Older people are:						
Demanding	44.1	45.6	31.6	43.9	53.5	37.2
Helpful	94.1	88.2	80.7	89.5	86.1	93
Forbidding	48.5	38.2	75.4	79	62.8	65.1
Boring	11.8	7.4	17.5	28.1	32.6	34.9
Cranky	19.1	10.3	12.3	21.1	39.5	39.5

V. CONCLUSION

Program Cerita Kehidupan Lanjut Usia (older person life story program) improved students' knowledge, attitude, and

perception toward elders. The result was influenced by the student' effort, time, and seriousness in writing the stories; gender, and level of education. The improving knowledge on aging like knowledge on life expectancy and lower fear or anxiety about growing old encourages students to have a healthy life, to attend schools, and to have life skills for better future. More students considered that elderly were helpful. Meanwhile, there were fewer students considered that elderly older persons werewas demanding, boring, and cranky. This indicates that students' respect to elderly older persons increased. Furthermore, the increasing students' willing interest in interaction with elderly and willingness to help helping theolder persons the elderly will improve the social inclusion in the community.

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