Technohumananistic-Based Character Education
(A Perspective for Indonesian Educational Policies to Face the Global Challenges)

Nyoman Dantes, Ganesha University of Education, Indonesia
Anak Agung Istri Ngurah Marhaeni, Ganesha University of Education, Indonesia

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Abstract
Technohumanistic-based character education is an approach in teaching character developed by Dantes (2012) which involves three dimensions namely mastery of science and technology, mastery of moral values (moral knowing, moral feeling, and moral action), and wisdom. To know whether the approach is effective for character building, a post test-only control group design of quasi-experiment has been carried out involving 180 junior high school students taken from three classification of tourist destination in Bali (resort, stop over, and excursion). The dependent variables of the study were moral knowledge and wisdom (moral action which is based on moral feeling). Data were collected through questionnaires, observation, and interview. Data analysis was carried out by using multivariate analysis of variance. Results of the analysis show that Technohumanistic-based character education affects significantly to teenagers' moral knowledge and wisdom in the three tourist destination areas. Further analysis reveals a number of moral action emerged; for instance, in resort and stop over areas, teenagers avoid drugs; and in excursion area teenagers show more respect and are more friendly to visitors.

Keywords: character education, moral, technohumanistic perspective

Education is the process of humanizing human or optimizing the development of human dignity (Dantes, 2010). It means that education must essentially take place within the human community and thus, in that process, the transformation of human culture happens from one generation to the next.

The development of human society becomes more advanced with the discovery of science and technology, which is also used by humans to answer the problems faced by them. In that context, the development of science will be related to the three dimensions of science: ontology, epistemology, and axiology. The ontology of science talks about the science object, which is in its development, it is based on verification procedures, objective and honest in one frame of epistemology of science, which is expected to provide welfare to human life as the dimensions of the axiology of science. They are the foundation of science development which is based on human values (Jujun Suryasumantri, 2000).

The rapid advancement of the development of human society, the needs and demands of life which are increasingly differentiated and specified, make it possible to bring individual lifestyles based on materialism, which slowly but surely lead to a society that tends to emphasize the extreme individual or group egoism. In an advanced society where science and technology development is considered to be characteristic of modern society and its success is more visible, the public is increasingly oriented towards materials and tend to keep away from a life which is based on the norms and values of humanity.

Today, people are increasingly obsessed with the material lifestyles which are increasingly urgent to be fulfilled, thus, the development of science technology increasingly leads to the fulfillment of material aspects of life, and if it is not realized, it will bring a tendency leading to the desertion of human values. The dominance of the fulfillment of the material needs of the community in various parts of the world has the potential to bring a wide range of violence, both in Europe, Arabic countries, America, and specifically in Indonesia which also virally occur, such as clashes among ethnics, races, religions, and groups. This is showed by the events such as Sambas Clash (2000) between Madura ethnic group and Dayak ethic group, Sampang Madura Clash (2012) between two belief groups, Lampung Attack (2012) on Balinese ethic, Jakarta Event (2012) between students of Senior High School 6 Jakarta and Senior High School 70 Jakarta, and Makassar State University Clash between the students of the Faculty of Arts and Faculty of Engineering (2012), and many others which always resulted on many casualties. It is suspected due to the tendency of education which is based solely on *learning to know* with the trend of prioritizing only the mastery of science and technology to fulfill the material needs and ignoring the transformation of human values to the younger generation, both in formal, informal, and non-formal education.

Related to the above issues, Dantes (2010) described that the activity to pursue mastery of science and technology become more frequent, especially in formal education. Almost all the activities in educational environment (read: school) leads to the development of science and technology only, thus all learning activities are characterized by the dominance of the activity of *thought* only. This goes so fast and becomes very common, which makes the fundamental of togetherness value fade away slowly but surely. The very fast development in science and technology has

presented a new challenge and an opportunity for mankind in all dimensions of life. This condition is reinforced by the grow of global life, so that every man and nation must always be ready to carry out the limitless global life. Globalization is a logical implication of the advancement of science and technology. Related to this, to be able to be a part of global community, everyone is required to be ready to compete in order to exist in this dynamic life. The revolution of information and communication as a direct result of the advancement of science and technology has eliminated the limitations of regional and territorial boarder, so for a community, this condition must be addressed quickly and comprehensively to save its identity (Schement, 2002; Jannes, 2001). For education, the condition is certainly a reality that must be addressed, especially because of the tendency of education is done solely only for the mastery of science and technology.

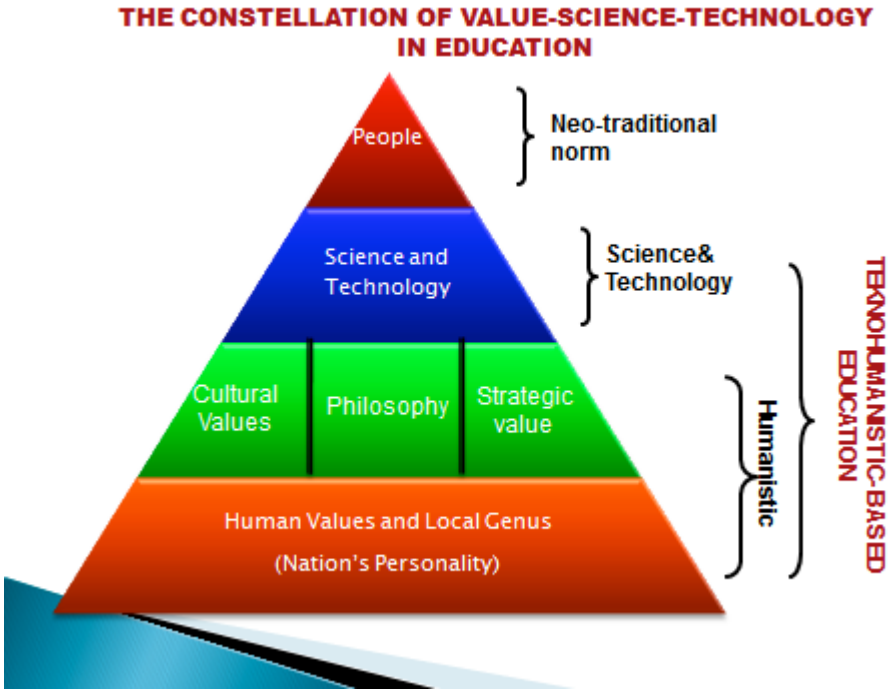
In fact, life is increasingly complex. Many evidences show the decline of understanding, ownership, and application of values in social life. Mastery of science technology that is not based on human valuesis used as a weapon to control and violate the human dignity of others. A low understanding of human values results in a variety of human conflicts. Therefore education should not only be based on the mastery of science and technology alone, but must also be based on the absolute values of humanity. The combination of the two dimensions should be integrated on youth education. Related to that, education should be able to answer the challenges. In other words, education should provide an opportunity for every student to acquire knowledge, skills, and values to equip them to enter the competition in the world. Therefore, the teenagers (learners) should be given meaningful learning, because, only with a meaningful learning, students can be equipped with life skills. Related to the background, Dantes' finding (2012) about technohumanistic-based learning was experimented to determine the effect of the implementation of the technohumanistic approach in learning on the character formation of students.

Indonesian society which tends to use the traditional typology, to be able to live harmoniously and happily in the new world environment (global), requires the presence of *Neo-traditional Norm* of new values rooted in traditional values which construct a new integrated value together with local geniuses. Some references in this regard show how clear and rapid the world changes are. Naisbitt (1997) has proposed *ten global megatrends* which will happen as *millennium global megatrend*. Rowan Gibson (1997) suggests three things connected to future life: *first, the road stop here*; which essentially states that the future will be very different from the past, and therefore requires a proper understanding of the future. *Second, the new time call for new organization*, which in essence states that with different challenges, the form of organization/institution is also different together with the characteristic of high efficiency and speed. *Third, where do we go next*; which essentially states that, with the various changes that occur, every organization or institution needs to formulate the right direction for the expected targets. Peter Senge (1994) also suggests that in the future, there will be a change from *detail complexity* to *dynamic complexity* that would make interpolation difficult. Rossabeth Moss Kanter (1994) states the future will be dominated by the values and cosmopolitan thought and everyone in every field, including education, is required to have 4C, namely: ***Concept, Competence, Connection, and Confidence***. Thus in the future, education is needed that is not only based on the mastery of advanced science and technology, but also the understanding

and mastery of basic and solid moral values, which is called ***technohumanistic education.***

Material Welfare obtained by humans in life is the result of their thought in science and technology which has a direct impact on the welfare of human life. With the results of science and technology findings obtained, space and time can be shortened, various diseases can be overcome, information technology grows rapidly, and so forth, causing increased quality of human life. However, it will not mean anything if it is not based on values, ethics, and morals. It could be a boomerang for humans. The product of science of human technology could violate humans, even destroy this universe. Therefore, a strong basic understanding of the values of humanity is needed. The touch from education is absolutely needed, because *education is a process of humanizing human*, thus education is a vehicle to transform culture, and education itself is *intangible culture, a social culture, and supporting culture system*. Education acts as an agent to form civilization. Education is an important process for *nation and character building*. Martin R King Jr., said "*Intelligence plus character that is the true goal of education*". Education should be oriented to the future. Vision of the future of education is defined as a process that can generate individuals equipped with the knowledge, skills, and values necessary for living in the era of globalization.

International Commission on Education for the 21st Century established by UNESCO reported that in this global era, education is carried out by leaning on the four pillars of education, namely *learning to know, learning to do, learning to be,* and *learning to live together* (Delors, 1996), and Dantes (2010) in his research found another pillar: *learning to live sustainably*, which interpret that learners should understand the meaning of life, and survive in this world, so that the survival of mankind with support from nature could be realized harmonically and sustainably. Through these education pillars, learners grow into skillful individuals who realize all rights and obligations, as well as the mastery of science and technology, and preservation of the natural environment. Thus, we need a model of education that can transform intellectuality with a solid base of civility, that is, Technohumanistic Education Model. The concept of Technohumanistic Education can be described as follows.



Technohumanistic Education is an education which transforms *science-technology* and *civilization values* which is based on the *fundamental principles of human dignity*. In the implementation, Technohumanistic Education refers to effective character education, the principles are as follows: (1) Technohumanistic Education develop "Core Ethical Values" as the basis of good humanity characteristic, (2) the character and Technohumanistic Education should be defined comprehensively, including the mind, feelings, and behaviors. Character education is as the core of Technohumanistic Education that in general touches *cognitive, affective, psychomotor, and metacognitive*. Technohumanistic education is based on the mastery of science and technology that is based on the solid foundation of understanding, concern about the basic ethical values, and actions which are based on ethical values, (3) the school should be "a caring community" which should reveal itself as an educational institution that has a good character, and (4) a number of values should be learned: "*honesty, fairness, tolerance, prudence, self-discipline, helpfulness, compassion, cooperation, courage, and a host of democratic values*" (Lickona, 1991: 43-45), which simultaneously will form the character of students.

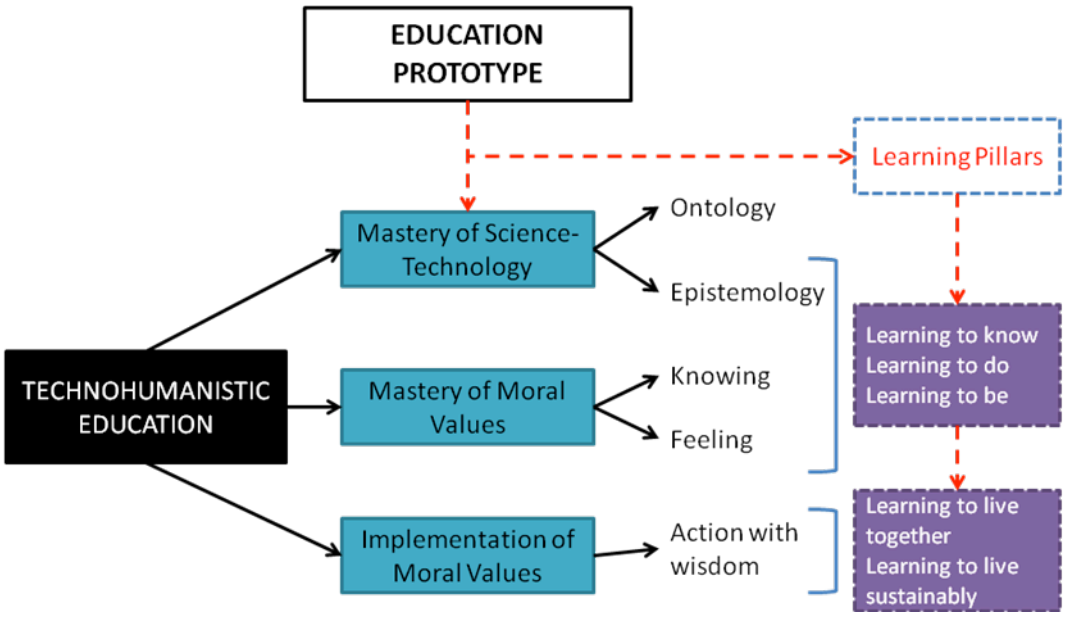
Based on the above theory, education and character development are classified into two dimensions, namely moral character and wisdom. Based on the constellation above, the following hypotheses are proposed: (1) there is a significant effect of the implementation of education with Technohumanistic approach towards the formation of students' moral as a character dimension; (2) there is a significant effect of the implementation of education with Technohumanistic approach towards the formation of students' widom as character dimension; (3) simultaneously, there is a significant effect of the implementation of education with Technohumanistic approach towards the formation of students' moral and widom as character dimension.

The population of the research was high school students in the province of Bali, Indonesia. The sample was taken by cluster random sampling technique. The sample consisted of 89 high school students, 45 teachers, and 45 parents. The data were

gathered using questionnaire with Delphi Pattern, selected interview, and focus group discussion. This study was conducted using experimental approach of post-test only control group design with two dependent variables, namely moral knowledge (Y1), and wisdom with the aspect of feeling and moral behavior (Y2). The research sample was gathered by random cluster sampling technique, tourism areas (A1), tourism destination areas (A1), excursion area (A3). The data were analyzed using descriptive analysis to validate the indicators of moral knowledge dimension and the indicators of wisdom dimension; trend analysis to validate the prototype of Technohumanistic Educational approach; and Multi Variate Analysis of Variance (MANOVA) to test the three hypotheses.

Based on the data analysis, it is found that; *first*, dimensions and indicators of character education consist of; (1) the dimension of moral with the indicators of; Moral Awareness, Knowledge of moral values, Ability to give moral perspective and moral development, Understanding of Self, Perspective about work, Self-.esteem, Empathy, Love to goodness, self-control, Modesty, Compassion, Honesty, Loyalty, Faith; (2) the dimension of wisdom with the indicators of; Moral competency, Willingness, Habit, Self discipline, Responsibility, Friendship, Courage, Perseverance, and Decision making.

Second, the prototype of implementation of Technohumanistic-based character education is found with the following matrix.



Third, the experiment on the implementation of Technohumanistic-based character education on students in tourism areas, tourist destination areas, and the tourism path areas finds that: (1) moral knowledge of students taking Technohumanistic-based character education is significantly higher than those taking conventional education with F_{obs} = 9.127, $p<0.01$; (2) wisdom related to feeling and moral behavior of students taking Technohumanistic-based character education is significantly higher than those taking conventional education with F_{obs} = 29.93, $p<0.01$; (3) moral knowledge and wisdom related to feeling and moral behavior of students taking Technohumanistic-based character education is significantly higher than those taking conventional education with F Wilks' Lambda = 7614.624, $p<0.01$.

The suggestions are addressed for: (1) formal, non-formal, and informal educators, it is suggested to implement it to the local areas, thus, the development and character building of students can be done optimally. This will have an impact on conducive social behavior which results in a positive impact on convenience social interaction of the nation; (2) the government, it is suggested to seriously promote the implementation of the proposed prototype. With the participation of government, it is expected to have a positive impact on the future of the nation.

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Contact Information:

- Dantes_nyoman@yahoo.co.id
- Ngurah_marhaeni@yahoo.com