Science and Charity, Educational therapy and active learning, increasing brain intelligence or heart intelligence

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Abstract

Transhumanism, a unique cyber entity perspective, posthumanism offers a unique integration between agency, memory and imagination in a philosophical way to achieve a harmonious ecology harmony that is developing and interrelated, increasing the education provided to graduates is necessary. The purpose of this paper discusses learning of Science and Charity, how education therapy and active learning, as well as improving brain intelligence or heart intelligence. From the results of the discussion it was concluded: 1) Various studies related to the phenomenon of the era of education 4.0 in general need to improve the education given to graduates therefore if society changes, schools need to change preparing students for the real world, rather than instead isolating students from the real world because students need to be a critical thinker and ready to solve problems, collaborate and communicate; 2) Education must teach the renewal of capacity to create, identify issues regarding current situations and actively provide solutions through the integration of faith, knowledge, charity or creed, shari'ah, morals; 3) Education must provide an ideal mode of therapy Lecture, Reading, Audiovisual, Demonstration, Discussion, Practice and Real Practice with a percentage ratio of 5: 10: 20: 30: 50: 75: 90, or use other patterns and not 100% lecture; 4) educational elements and principals must understand the concepts of knowledge for practice and knowledge in practice which consists of different varieties of knowledge as competitors or complementary such as formal knowledge (referring to theory or research and law or policy) and informal (referring to the practice of wisdom, experience personal, intuitive and tacit knowledge); 5) Other countries are fast advancing on the basis of creativity and innovation as the drivers of the knowledge economy by shifting the education system with the core of considering the abilities and talents of individuals and to create new knowledge.

Keywords: Science, Charity, Educational therapy, active learning, brain intelligence, heart intelligence

A. Background

The last decade of the world has changed dramatically (Nolan, 2005: 9; Case & Fair, 2007: 47; Ray, 2009: 284), faster than before (Stickland, 2002: 1; Kabat-Zinn, 2009: 333; Wastian, Rosenstiel, West & Braumandl, 2014: vii; Kartika & Wijaya, 2016: 29; Friedman, & Hayden, 2017: 15) throughout history (Dornberger, 2018: 2; Rosling, Rosling & Rosling, 2019: 59) exponentially creates connections that never imagined (Brown, 2014) current and efficient (Kartika & Wijaya, 2016: 29) changing individual connections and personalization (Diekhöner, 2017).

Education (pedagogy) and most people (Gleason, 2018: 178) have not been able to catch up with this fourth industrial revolution (Raich, Dolan, Rowinski, Cisullo, Abraham & Klimek, 2019: 41), some say pedagogy does not play any role in this era of transhumanism (Misra, 2019), not even gods (Apollo-Daito, 2019), the more severe Wianarno Surachmad article published in Kompas 3 February 2000, said: "What is the educational contribution so far? Zero "(Harefa, 2002: xii). The acceleration of the development of Artificial Intelligence

(AI) and Cyber Reality (CR) is required to define the uniqueness of humans vs. smart machines and Cyber Entities (Raich, Dolan, Rowinski, Cisullo, Abraham & Klimek, 2019: 41) which is the integration of internet and manufacturing or cyber internet -physical of things (Prasetyo & Sutopo, 2017: 488-495; Suwardhana, 2017: 102-110; Muhammad, 2018). It was postulated that the 4.0 industrial revolution affected many sectors, including education. Various studies related to the phenomenon of education in this era (Robandi, Kurniati & Sari, 2019: 38) generally feel the need to improve education provided to graduates (Praherdhiono, Setyosari, Degeng, Slamet, Surahman, Adi & Abidin, 2019: 23).

Grafura & Wijayanti, (2019) argued "teachers are faced with two challenges at once, namely changes in student characteristics and improvements in the education system that tend to be partial." Akmal, (2019: 182) conveyed in this era "Teachers must be technology literate. The class becomes a study group gathered in Whatsapp, edmodo "groups" with online classes via teleconference (Nurjaman, 2018: 88).

This new reality requires a model of lifelong education, which is truly future-oriented, and it is proposed to stand on four pillars: learning, research and design, development and dissemination, essentially today we live through a moment of profound transformation in education (Raich, Dolan, Rowinski, Cisullo, Abraham & Klimek, 2019: 41), namely identifying artificial intelligence, nanotechnology, robotization, internet of things, augmented reality, digitalization (Sousa & Rocha, 2019).

The effort to catch up with the fourth industrial revolution is to transform and accommodate more advanced concepts (Tobroni, 2018: 137), create a responsive education system (Hidayat, Saputri & Asbir, 2017: 22), improve the quality of teachers (Notre Dame School, 2018: 25), aligning the direction of education in accordance with the noble values of the nation (Luthfiah & Afriansyah, 2019: 4) and many steps that must be taken whose substance begins with improving the way of teaching teachers (Anwar, 2018: 3) regarding the epistemology of active learning.

"When epistemology is active learning, questions about knowledge are far more strategic and precise as understanding key aspects and assumptions help understand the substance of active learning paradigms begin and why these approaches are accepted and remain valid (Misseyanni, Lytras, Papadopoulou & Marouli, 2018: 19). Improving teaching methods, Confucius with his analogy, Silberman & Biech, (2015: 2) modifying and expanding Confucius's policy to what he calls the Active Learning Credo (Aslan, 2019: 150) "When I hear, I forget, I hear and see, remember a little. I listened, saw, and asked questions and discussed, I began to understand. I hear, see, ask, discuss, do, will gain knowledge and skills. When I teach someone, I master what I have learned "(Silberman & Biech, 2015: 2), in this case Aslan, (2019: 150) adds that this model focuses on learning responsibility and attributes of its approach.

Far beyond the Analects of Confucius, Islam is not practiced only in mosques; it is built into the actions of everyday life (Gamble & Weil, 2009: 56). Allah Himself Wrathful to those who talk alone without doing (Qs. Ash Shaff [61]: 2-3), not brainless (not thinking) telling people without doing (Qs. Al Baqarah [2]: 44), brought in and cast aside (like donkeys circling the pounders (Bukhori & Muslim), Lecturers, Teachers and Lecturers cut their own tongues [witnessed by the Prophet and told by Gabriel when Isra 'Mi'raj] (Ahmad, Nu'aim & Ya'la), are called madmen in poetry manshur al-Fakih, (Qurthubi, 1/410).

Learning perspective of Science and Charity in this context as the Arabic proverb: (Al-Awaisyah, 2007: vii) Science is like a tree

and charity is fruit (Fathurrohman, 2017: 141). Knowledge without charity (practice / manners) (Nasrullah, 2015: 112; Hanafi, 2018: 173) is like a tree without fruit. The perspective of this adage is the doctrine of faith, science, and charity or between the doctrines of faith, worship, and morals in the context of education. All three are a unified whole. (Ishmael, 2018: 127). With regard to this intelligence, Ismail research results, 2017: 111) "The Qur'an discusses more comprehensively (syamil). perfect (kamil), and integral (mutakamil). The Qur'an is the Word, while others are only scular instincts. just being smart is not enough, it takes a higher level than just being smart to achieve recognition of God's greatness and submit to the Creator (Level "ulil albab").

B. Purpose

The purpose of this paper discusses learning of Science and Charity, how education therapy and active learning, as well as improving brain intelligence or heart intelligence.

C. Telaah Literatur

1. Science and Charity in Education perspective

   21st Century societies are known as knowledge societies (Rusman, 2017: 140), defined by the constant changes in the global world that are influenced by technology that affect the way people live, work, and communicate (Gauthier, 2018: 76). If society has changed, schools also need to change to prepare students to face the real world (Wiselet & Vinila, 2019: 340), not vice versa, schools isolate students from the real world (Susanto, 2014: 67). Students need to be critical thinkers and ready to solve problems, collaborate and communicate. "... to develop into critical and creative thinkers, students not only have to learn concepts, they must practice... In each session, short exercises challenge students to apply concepts that are followed by comments after the action taken" (Allen & Gerras, 2009).

   In fact, creativity, critical thinking, collaboration and communication are 21st century skills that teachers must apply in their learning (Wiselet & Vinila, 2019: 340). As Ashar argues, (2019) "Critical thinking and problem solving, have been a component of human progress throughout history, from the development of early tools, agricultural progress, vaccine discovery, land and sea exploration and even interstellar".

   Education Integration renewing the capacity to create, namely identifying the issues and problems of human life and actively participating in finding answers (Burhanuddin & Baedowi, 2003: 55 in Afif, 2017: 35) and this needs integration as the Qur'an (Qs. Ibrahim [14]: 24-25), Allah gives a beautiful picture of the integration of faith, knowledge, charity or creed, shari'a, morals like good and bad trees. Faith is the root of sustaining education. Science is the branch that issues branches of knowledge and branches of telecommunications, while charity is like fruit in terms of technology and art products (Sardany, 1987: 84).

   21st Century knowledge is known as a determinant of competitiveness, and prosperity (Garelli, 2008: 59). In this context Abed, (1991: 92) quoting Alfarabi's opinion in Burhan "The term" knowledge "['Ilm] used in general is a decision or a decision [tasdiq], a conception [tasawwur], as consideration is definite [yaqin] or uncertain [Laysa bi-yaqin] As an aspect is needed [daruri] or not needed [ghayr daruri] ".

2. Educational therapy

   Educational therapy with regard to learning retention, departing from the Confucius Analect, Silberman & Biech, (2015: 2) modifying and expanding Confucius policy to what he calls the Active Learning Credo (Aslan, 2019: 150)

"When I heard, I forget, I hear and see, remember a little. I listened, saw, and asked questions and discussed, I began to understand. I listen, see, ask, discuss, and do acquire knowledge and skills. When teaching, I master what I learn ". Silberman & Biech, (2015: 2) provides an ideal mode of learning: "Lectures 5 percent; Read 10 percent; Audiovisual 20 percent; 30 percent demonstration; 50 percent discussion; Practice by doing 75 percent; Teach others 90 percent ", this can be imagined in Indonesia almost 100% Teachers or lecturers teach only lectures, departing from this milestone Kadir & Asrohah, (2015: 3) regretted that even education experts do not provide ideal examples of how teaching is implemented with regard to the concept of learning retention, the concept of Silberman & Biech, (2015) in the perspective of learning experiences, Edgar Dale in Rusman, (2017: 215) classifies retention by level.

Figure 1 Cone of Edgar Dale's Experience (Rusman, 2017: 215)

D. Discussion

About integration in learning, charity and science that Hunter, (2015) refers to as Action Knowledge. Polanyi (1966) identified as a special type of knowledge embedded in practice, similar to Furlong's (2013) opinion about teacher's practical knowledge. Schon (1983) in Hunter, (2015) discusses the importance of knowing in action.

The notion of educational reform [from curriculum policy, learning modes to class structuring] is very important and is present in what Dewey (1933) in Hunter, (2015) calls a reflection: "active consideration, firm stand and careful in supporting beliefs or forms knowledge and consideration Cochran-Smith and Lytle (1999) in Hunter, (2015) call this knowledge-practice, arguing that the experience in which knowledge is developed is very important Niess and Gillow-Wiles (2014) in Hunter, (2015) argues that this knowledge and two other conceptions (knowledge for practice and knowledge in practice) (Cochran-Smith & Lytle, 1999, p. 274 in Hunter, 2015). Practitioner's knowledge as a special form of knowledge that can be utilized by practitioners, consists of several different varieties of knowledge as competitors or complementary, broad differences are drawn between formal knowledge (referring to theory or research and law or policy) and informal (referring to the practice of wisdom, personal experience, intuition and tacit knowledge) (Evans & Hardy, 2010: 114).

Rosenthal (2007: 204) explains in the footnotes "When Ibn 'Arabi, Futuhat, II, 282, talked about ilm al-'ilm, he thought of disciplines related to mystical theory (the concept of God), as against' Ilm al- ' charity, a discipline that deals with mystical practice (the practice of worship), but it seems that it is' nature al-'ilm in the description of baydn "good style" as a "banner of knowledge".

The integration of faith, science and charity or creed, shari'ah and morals analogize the curriculum building like a tree of good and bad (Qs. Ibrahim [14]: 24-26). Faith is the root of sustaining education. Science is the trunk that issues branches and branches of knowledge, while charity is like fruit and trees synonymous with technology and art.

Educational therapy with regard to learning retention, Silberman & Biech, (2015: 2) provides an ideal learning mode: "Lecture of 5 percent; Read 10 percent; Audiovisual 20 percent; 30 percent demonstration; 50 percent

discussion; Practice by doing 75 percent; Teach others 90 percent ", this can be imagined in Indonesia that almost 100% Teachers or lecturers teach only lectures as the learning steps suggested by Kadir & Asrohah, (2015: 3), it is unfortunate that education experts do not provide ideal examples of how teaching is implemented with regard to with the concept of learning retention, the concept of Silberman & Biech, (2015) in the perspective of learning experiences, Edgar Dale in Rusman, (2017: 215) classifies retention according to level.

Singapore began to shift its education system from efficiency-driven to ability-driven (Tay & Lim, 2013: 117). efficiency-driven is perfecting the system through steps such as streaming producing skilled workers to the economy in the most efficient way. ability-driven equips and prepares students to meet the challenges of the knowledge economy by considering their individual abilities and talents (Tan, 2005: 447). Students in Singapore need not only the skills to apply the knowledge they have acquired but also the ability to create new knowledge. Because creativity and innovation are the main driving forces for advancing in the knowledge economy (Ng, 2002 in Tan, 2005: 447).

E. Result

From the results of the discussion concluded as follows:

1. Various studies related to the phenomenon of education in the 4.0 era generally need to improve the education provided to graduates, therefore if society changes, schools need to change preparing students for the real world, rather than instead isolating students from the real world because students need to be critical thinkers and ready to solve problems, collaborate and communicate;
2. Education must teach the renewal of capacity to create, identify issues regarding current situations and actively provide solutions through the integration of faith, knowledge, charity or creed, shari'ah, morals ;;
3. Education must provide the ideal modes of therapy Lecture, Reading, Audiovisual, Demonstration, Discussion, Practice and Real Practice with a percentage ratio of 5: 10: 20: 30: 50: 75: 90, or use other patterns and not 100% lecture;
4. Educational elements and their stakeholders must understand the concept of knowledge for practice and knowledge in practice which consists of different varieties of knowledge as competitors or complement each other such as formal knowledge (referring to theory or research and law or policy) and informal (referring to the practice of wisdom, experience personal, intuitive and tacit knowledge);
5. Other countries are fast advancing on the basis of creativity and innovation as the drivers of the knowledge economy by shifting the education system with the core of considering the abilities and talents of individuals and to create new knowledge.

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