

DIALECTICS OF EDUCATIONAL TECHNOLOGY AND REPOSITION ISLAMIC EDUCATION (PAI) 'TEACHER'S ROLE IN GLOBALIZATION ERA

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Abstract

Learning technology as applied disciplines grows and evolves according to the needs of learning: more effective, efficient, spacious, and quickly in the global era. It also facilitates problem solving learning on design aspects, development, utilization, assessment processes and learning resources. Perspective of learning technology in the global era is how Islamic education (PAI) teachers professionally are able to design and create innovative learning environment with reference to the process of national education standard that sets out in the framework of national education. PAI teacher's challenge in the global era is the demands of the learning process that can improve information literacy that is well supported by data and facts to deliver to the students in the era of information society and the knowledge society. So it is needed an approach and innovative method of learning strategies that address the challenges of learning needs in the globalization and information era. Dialectics of technology on learning in a globalization era are characterized by the demands of the students to have critical thinking skills, problem solving, innovative and creative, mastering ICT, fluent communication and multi languages. And also Islamic education teacher competence and interaction and learning technologies such as ICT products that push reposition the role of an advanced teacher trainer, counselor, manager, participants, leader and author of learning works as an abstraction and a high commitment as a base quality of professionalism.

[Teknologi pembelajaran sebagai disiplin ilmu terapan tumbuh dan berkembang sesuai kebutuhan belajar yang lebih efektif, efisien, luas dan cepat di era global. Selain itu juga memfasilitasi pemecahan masalah belajar pada aspek desain, pengembangan, pemanfaatan, penilaian proses-proses serta sumber-sumber belajar. Perspektif teknologi pembelajaran di era global adalah bagaimana guru PAI secara profesional mampu mendesain dan menciptakan lingkungan belajar yang inovatif dengan mengacu pada standar proses pendidikan nasional yang ditetapkan dalam kerangka pendidikan nasional. Tantangan guru PAI di era global adalah tuntutan terhadap proses pembelajaran yang mampu meningkatkan information literacy yang baik didukung oleh data dan fakta untuk menghantarkan siswanya menuju pada era masyarakat informasi dan masyarakat ilmu pengetahuan. Sehingga dibutuhkan pendekatan strategi dan metode inovatif pembelajaran yang mampu menjawab tantangan kebutuhan pembelajaran pada era globalisasi dan informasi. Dialektika teknologi terhadap proses pembelajaran di era global diwarnai dengan tuntutan terhadap siswa mempunyai keterampilan dalam berpikir kritis, memecahkan masalah, inovatif dan kreatif, menguasai ICT, komunikasi lancar, multi bahasa. Serta interaksi kompetensi guru PAI dan produk teknologi pembelajaran berupa ICT yang mendorong reposisi peran guru menjadi pelatih, konselor, manajer, partisipan, pemimpin serta pengarang karya pembelajaran sebagai daya abstraksi dan komitmen yang tinggi sebagai basis kualitas profesionalisme.]

Keywords: *Learning technology, Islamic Education Teacher, Globalization*

Introduction

Technology is an integral part of every culture and have a important role in education. But in reality there are many people who do not admit even the existence honing learning technology to help in solving the problems of teaching and education. For those technologies both practitioners and academics of learning have to think and act proactively to address these challenges, to prove and develop learning technologies so that benefits are extensive, especially in the face of the globalization era.

Learning technology is the practical application of knowledge to work on something that we want in the world of learning. Therefore, it should have the prospect of learning technology which is used or is associated with innovative and integrative learning process of the application of ICT to achieve the goal of effective learning.

Prospects of learning technology that are expected so far include: *first*, learning technology is able to solve the problem and or facilitating in problem-solving to life long learning in humans, anywhere, everywhere, in any way, and by anyone. *Second*, as well as process improvement and also tool that enables a generation which uses knowledge of the previous generation.¹ *Third*, according to Association for Educational and Technology (AECT) said that the prospect of learning technology includes two fundamental aspect: to analyze the problem of finding, implement, evaluate, and manage solving problems related to all aspects of human learning and helping to bridge and overcome learning problems.²

Learning technology is an applied discipline, it means that it develops for its needs in the field, namely the need to study (learn more effectively, efficiently, wider, faster, and so on). For that there is a product that is deliberately created, found, and be used. But the development of information and communication technology or Information and Communication Technology (ICT) that is unbelievably fast lately and offers a number of possibilities previously unimaginable had reversed our thinking with “how to take advantage of these technologies to address the problem of learning”.

The prospect of the learning technology is trying to solve and or facilitating in problem-solving of life long learning in human anywhere at any time in any way and by anyone. According to Burton, John and Barbara Locke that the prospect from learning technology is a process

¹ Robert Reiser and John Dempsey, *Trends and Issues in Instructional Design and Technology* (New Jersey: Pearson Education Inc., 2002), p. 195.

² AECT Board of Directors. AECT Standards 2012 version. <http://www.aect.org>, accessed on August 29th, 2016.

improvement as well as the means by which a generation which uses knowledge of previous generation.³ This reality illustrates that the learning process is badly affect the quality of education that have implications for the low quality of Indonesian human resource development.

Seeing the strategic role of the teacher in this learning process, especially in the globalization era, the availability of teachers who have quality and comprehensive competence in the aspect of pedagogical, professional, social and personal becomes a necessity to improve the human development index in Indonesia in the era of the Association of South East Asian Nation (ASEAN) Economic Community (AEC). This positive response should be indicated by constantly doing improvement of the quality of teacher education programs that impacts on the quality of the creation of qualified teacher.

Furthermore, obstacles and challenges in the perspective of teacher who have quality and have global competitiveness are not easy. Because it takes the optimization of the components that contribute to the quality of the learning process and result, which is according to R.S Earle and K.A Persichitte, consisted of student, teacher, material, method, learning resources, infrastructure and cost.⁴ This component of the teacher plays a very important in improving the quality of the learning process and result. This is supported by the opinion from Yusuf Hadi Miarso who said that teacher as teaching agent demanded to organize the learning process is well within the framework of national development which refers to the five things, namely suitability, attractiveness, effectiveness, efficiency and productivity in the learning process.⁵

³ John Burton and Barbara Locke, "Building Equity Through Learning: Instructional Technology for rural Commmunity Development", in *International Journal of Educational Technology*, Volume 2, Number 2, July, 2000.

⁴ R.S. Earle, K.A. Persichitte, *Standards for The Accreditation of School Media Specialist and Educational Technology Specialist Programs* (USA: AECT, 2005), p. 102.

⁵ Yusuf Hadi Miarso, "Peningkatan Kualitas Guru dalam Perspektif Teknologi Pembelajaran", *Paper*, presented in semiloka by UNES 2008; Yusuf Hadi Miarso, *Menyemai Benih Teknologi Pendidikan* (Jakarta: Pustekkom Diknas and Kencana, 2005), p. 57.

Implementation of quality learning process in order to improve quality education should be based on Law No. 14 of 2005 which states that teachers are professional educator with the primary task of educating, teaching, guiding, directing, train, assess, and evaluate student as well Government Regulation No. 19 of 2005 on national education standards that states that teachers must be competent in performing the tasks their profession and be able to apply appropriate educational technology. How dialectic application of learning technologies to reposition the teacher's role in the learning process in the global era can be seen as an innovative strategy that is done by teacher in improving the quality of learning will be studied in this paper.

Perspective of Educational Technology

The concept of learning technology as applied science disciplines, develops due to the demands and needs for creating, designing learning activities more effective, efficient, quickly and quality. This is in accordance with the opinion of Seels and Richey were told that learning technology is the theory and practicing in design, development, utilization, management and assessment processes and sources for learning.⁶ Meanwhile, according to AECT 1994 formulation of the definition of learning technologies are:

Instructional technology is a complex, integrated process involving people, procedures, ideas, devices, and organization, for analyzing problems, and devising, implementing, evaluating and managing solutions to reviews those problems, in the situation in which learning is purposive and controlled.⁷

If it is analyzed in depth, the component definitions according AECT learning technology in 1994 consisted of: the theory and practice; the design, development, utilization, management, and evaluation; processes and resources; and learning. The primary mission is to assist

⁶ Yusuf Hadi Miarso, *Landasan Falsafah dan Teori Teknologi Pendidikan* (Jakarta: Post Graduated of UNJ, 1987), p. 90.

⁷ Heinich, et.al., *Instructional Media and Technologies for Learning* (New Jersey: Prentice Hall, Inc, 1996), p. 71.

the learning technology, trigger and stimulate the learning process and provide convenience or learning facility. The achievement of learning goals in the form of changes in knowledge, skills and attitudes are relatively fixed posed by the experience, not because maturity is the main criteria of learning.

Januszewski and Molenda also believe that learning technology is the study and ethical practice of facilitating learning and improving performance by creating, using and managing the processes, and sources of appropriate technologies.⁸ From both the above opinion, it can be concluded that the mission of learning technology very concerned to facilitate, improve performance, simplify, and solve the problem of student learning in order to learn a better, faster, fun, exciting, motivating ourselves, successfully or effectively done ethically in the form of creation, use or utilization and management of processes and learning resources and systems appropriate learning.

The challenge of learning technology in the future is how teacher are able to design and create innovative learning environment. An innovative environment is as defined by the SETDA to the learning environment and the class model in 2020 are: (1), Provided a learning environment that supported high technology and speed of access; (2), Self-learning; (3), Online and blended learning; (4), Digital and open content; (5), Project-based collaborative learning.⁹

This is supported by the opinion of Lionel Evans and John Leedham stating that constraints the use of learning technology in the globalization era are:

(1), The limitations of human skill in mastering the learning technologies; (2), The cost or efficiency constraints; (3), The progress of learning technologies coupled with moral decadence; (4), The lack

⁸ Alan Januszewski, *Educational Technology: The Development of a Concept* (New Jersey: Englewood Publ. 2001), p. 113.

⁹ SETDA, National Educational: Trend 2012. *url: <http://www.setda.org/web/guest/nationaltrend>* accessed on July 12th 2016.

of dissemination of learning technology in educational institutions; (5), The challenge of psychology is the psychological condition of a person can hamper communication processes both in terms of enthusiasm, communication, self-confidence, and comprehension; (6), Cultural challenges, namely the local culture are often different from other region. If in the process of communication lack of understanding, it will cause delays in communication; (7), Environmental challenges, namely a conducive environment has an important role in the learning process so that the process of learning communication can run well.¹⁰

Therefore it is necessary to do a comprehensive study based on the ethics of the profession to facilitate learning and improve the performance of teachers through the creation, use, management of appropriate technology to process and learning sources. By the rapid development of technology, it makes demand on teacher are increasingly complex given the number of variable which should be addressed in teacher quality learning process, involving the school administration and management skills of student.

According to Gagne that a teacher who has a good competence is appropriate to be a: (a) *the designer of instruction* who creates teaching and learning activities, the draft pick and choose at least includes learning materials, formulating learning goals, select appropriate learning methods and implement the evaluation activities in learning; (b) *the manager of instruction* that is able to manage learning situations and learning conditions of effective and democratic; (c) *the evaluator of student learning* who always follows the development stage of the progress of student achievement in every period of learning.¹¹

Essential skills that are dominated by teachers in the future according to Januszewski and Molenda are: the digital age literacy,

¹⁰ Lionel Evans and John Leedham, *Aspects of Educational Technology: Educational Technology for Continous Education* (London: Kogan Page Ltd. 1985), p. 61.

¹¹ Robert Gagne, *The Conditions of Learning* (New York: Holt, Rinehart and Winston, 1991), p. 172.

inventive thinking; effective communication; and high productivity.¹² Teacher who want to succeed in the future are advised to master digital technology. The smart teacher will be able to think critically to solve problem as well as creative and innovative in their work. If competence is accompanied by the ability to communicate effectively and able to cooperate with other people, then challenge any heavy impassable by the teacher.

According to Hartoyo that professional teacher are always changing old practices, even willing and able to leave the methods and recipes for success in the past.¹³ This is done by a teacher in order to face the challenges in the present and future, through learning and innovate continuously, critical thinking in problem solving, creative and innovative in their work, be able to communicate effectively and mastered digital technology and to master in ICT.

Prospect of learning technology in globalization era could encourage teacher to create a knowledge society. The society that believe that knowledge and human skills are far more important than natural resources, abundant material and facilities modal. By existing media, learning technology can be optimized and a solution in resolving the problem in the world of learning through space and time in communication, providing knowledge of science in teaching, make it easier to obtain information from the outside that the data assist students in dealing with problems and also develops learning process and results in accordance with level developing critical thinking of students.

Related to it, teacher as educator should be able to professionally in answering these challenges. According to Zainal Aqib, there are four sizes of a teacher professional stated that: (a) having a commitment

¹² M. Molenda A. Januszewski, *Educational Technology: a Definition with Commentary* (USA: Lawrence Erlbaum Associates, 2008), p. 70.

¹³ Hartoyo, "The Utilization of Information and Communication Technology (ICT) in Language Learning", *National Seminar on "ICT and Language Teaching" English Department*, Semarang State University, 2008.

to students and the learning process; (b) in-depth control of teaching materials and how to teach it; (c) having responsibility in monitoring the learning ability of students through a variety of evaluation techniques; (d) he should be part of a learning community within their profession.¹⁴ To apply the optimal learning process, teachers have a strategic position.

On a strategic and fundamental role of teacher in planning, implementing and evaluating teaching and learning activities, education experts Marsh, C.J stated: "I've never seen a good student without a good teacher".¹⁵ This simple sentence implies the real depth meaning, because honestly it must be recognized no matter how nice and neat system and learning program designed, but it will determine the outcome, in terms of the achievement of the desired quality is determined by the administrator (teacher). For the implementation of teaching activities in the classroom, the teacher holds a very strategic role, both in his capacity as a teaching planner, executor of teaching, until the process of assessing student learning outcomes. Even further, through feedback obtained during the process as well as feedback obtained through the recording of learning outcomes that are picked through an adequate evaluation process, teachers are also expected to be able to modify the design and implementation of the teaching.

Prospects learning technology in globalization era according to Suyanto are: (1) learning technology capable of creating knowledge society that is people who believe that knowledge and human skills are far more important than natural resources, abundant material, and capital; (2) With the facility of learning media, should be able to run optimally; (3) learning technology is a policy to resolve the problems in the world of learning; (4) learning technology is able to penetrate the distance of time and space in the world of communication in education; (5) learning

¹⁴ Zainal Aqib, *Menjadi Guru Profesional Berstandar Nasional* (Bandung: Irama Widya, 2009), p. 19.

¹⁵ Colin Marsh, *Handbook for Beginning Teachers* (Melbourne: Longman, 1996), p. 106.

technology can feature various types of audio-visual materials including still images, movies, objects, specimen; (6) learning technology give new knowledge about science in teaching¹⁶; (7) learning technology makes easy to obtain information from the outside that can help us in dealing with problems; (8) learning technology can enhances the learning process and results with respect to the level of thought students.¹⁷

While the learning technological challenges of globalization era are: (1) the increasingly rapid social changes have implications for the shift in society's values; (2) The absence of new innovations related to the kinds of learning technology in terms of both technology and process and systems; (3) In connection with the use of technology, lack of teacher's mastery of the technology raises concerns about students, so it does not have a close relationship with the teachers and students become passive implications for the use of technology; (4) The existence of a global transformation is not always a positive thing. The number of entertainment out of control, the amount of grain that is less educated, the violence there and thus may cause more students imitate and do what is heard and seen through technology causing things that are not desirable.

Learning technology will experience developing in line for their ICT development needs in the field on how effective teaching and learning. For that there is a product that deliberately and there are discovered and exploited. But the development of information and communication technology very rapidly lately and offers a number of possibilities previously unimaginable had reversed our thinking with "how to take advantage of these technologies to address the problem of learning?"

Competence of Islamic Education (PAI) Teachers

The emphasis of the education development is put in improving

¹⁶ Slamet Suyanto, *Teacher Education Programs At Deakin University: Moving from apprenticeship to School-Based Experience* (Melbourne: CDU, 1997), p. 47.

¹⁷ U. Margot, "Global Education", it paper was presented on Bentang Belajar Conference in, December 28th 1999 by UNY Research Centre.

the quality of all levels and types of education is strongly influenced by the ability or competence of teachers. According to education experts Mangal and Mangal, the notion of competence is defined as the capacity to do something which is derived from the learning process.¹⁸ This is supported by the opinion of Yusuf Hadi Miarso who said that the competence is a unified whole that illustrates the potential, knowledge, skills, and attitudes are considered related to certain professions with respect to the parts that can be actualized and realized in the form of action or performance for practicing a particular profession.¹⁹

The competence problems of Islamic education (PAI) teachers are between reality and idealism as social accountability can be seen through portraits of PAI teachers who are teaching in school:

- a. Picture shows that the knowledge of PAI teachers, though not all, have a lack of management of teaching and learning, knowledge evaluation and measurement, as well as knowledge of curriculum development. Disadvantages take serious attention, especially by government, schools and as well as PAI teachers. If there is no improvement of the above shortcomings, the course goals Islamic education is not fully realized.
- b. The teaching-learning process, PAI teachers are more concentrated in theoretical scientific issues that are purely cognitive and put more emphasis on teaching work/knowledge transfer.
- c. Islamic education teaching methodology for this is generally not changed, he was like a conventionally-traditional and monotonous so boring the learner.
- d. Islamic education teaching and learning activities are often concentrated in the classroom and are reluctant to do the practice and research activities outside the classroom.

¹⁸ S.K. Mangal and Uma Mangal, *Essential of Educational Technology* (New Delhi: PHI Learning Private Limited. 2009), p. 113.

¹⁹ Yusuf Hadi Miarso, *Menyemai Benih...*, p. 76.

e. The use of media for teaching at both the teacher and student are less creative, varied and fun.

f. Teaching and learning activities (KBM) from Islamic education tend to be normative, linear, with no illustrations socio-cultural context in which the environment of such learners are, or can be connected with the times that are rapidly changing.

g. Lack of communication and cooperation with parent in addressing the problem faced by learner.²⁰

PAI teachers as a professional educator and a learning agent should be able to organize the learning process with the best possible standard refers to the process of national education set out in the framework of national education. Therefore every teachers of Islamic education must master and understand and apply all of competence in supporting his duties as a professional educator. Referring to Law No.14 of 2015, the professional teachers will demonstrate the performance depicting the four competencies, namely pedagogical, professional, personal and social.

Among the four competencies, pedagogical and professional competence is the closest to actualized in learning performance. Pedagogical competence is closely related to the ability of teacher to understand the characteristic of student, the design and implementation of learning, implementing evaluation of learning outcomes and the ability of PAI teachers in developing student to actualize themselves. While the professional competence of PAI teachers actualized in the form of: (a) controlled substances is broad and deep and basic scientific methodology; (b) to master in the teaching materials in the curriculum; (c) are able to develop curriculum and learning in a creative and innovative; (d) to master the basics of matter extracurricular activities that support student achievement of learning goals; (e) be able to assess and improve learning through action research.²¹ Both pedagogical competence and professional

²⁰ Ade Sanjaya, Problemasi yang dihadapi guru PAI, in <http://adesanjaya.blogspot.com/2010>, accessed on July 25th, 2016.

²¹ Y. Miarso, *Menyemai Benih...*, p. 90.

qualifications must be improved and developed on an ongoing basis in line with the development of science, technology and art.

The development of science and technology rapidly, has raised the complexity of the problems in the process of studying the Islamic education subject. These conditions require more specialist ability of Islamic education teachers in carrying out his duties in carrying out learning activities. So according to I Wayan Santyasa, a teacher must have a minimum of professionalism which involves three things: (a) skills in accordance with the scientific field to be dominated to the area to be explored; (b) the commitment and responsibility; and (c) discipline in professional organizations.²² In order to improve the competence of the teachers need a commitment that gave birth to his third collaboration to improve the quality of learning process and results.

The toughest challenge of PAI teachers in globalization era claims against the learning process that can improve information literacy is well supported by data and facts to deliver to the students in the era of information society and the scientific community. So in need pronged approach strategies and teaching methods that address the challenges of learning needs in the globalization and information era.

According Sutrisno demands in response to globalization of learning has been present in sight, various computer devices and their connections in delivering students learn quickly and accurately when used correctly and appropriately, for it takes the teacher resources that are responsive to the utilization of process and product technology learning that ICT²³, and written by David Young that ICT-based learning has many advantages²⁴, such as the use of the time used to be more effective, materials subject matter becomes more accessible, attractive, and inexpensive cost.

²² I Wayan Santyasa, "Dimensi-Dimensi Teoritis Peningkatan Profesionalisme Guru," in <http://www.freewebs.com/santyasa/pdf2/.pdf> .2007, accessed on July 8th, 2016.

²³ Abdul Gafur, "Pendidikan dalam Tantangan Teknologi ICT", in *Cakrawala Pendidikan: Majalah Ilmiah Kependidikan*, May 2010 th. XX. No. 2.

²⁴ David Young, "Discourses on Communication Technologies" in *European Journal of Communication* (London: Sage Publications, 2013).

In applying the concepts and principles of learning technology, to note the existence of problems, issues, or challenges to help the learning process of Islamic education optimally. The problem and challenges referred to broadly cover areas or regions of the different conditions and practices or implementation of education in educational institution²⁵, by geography, demographics, economy, and culture of our country are various.

The presence of diverse utilization of process and product information and communications technology ICT can not be avoided in the process of learning activities can improve the quality of the learning process of Islamic education in digital era. So the PAI teachers must quick to adapt, independent, advanced, competitive and characterized by implementing and synergize the curriculum and the learning process of Islamic education is more efficient, innovative, effective, and optimal for the nation progress.²⁶

This is the challenge of PAI learning in the globalization era, the presence of learning technology requires students to be creative, innovative, critical thinking and metacognitive so makes the student have the ability to communicate and work collaboration (*group*) as well, with the hope that the knowledge and skills acquired can be the foundation live in a society that has character both locally and globally, and reliable personal and social. With the presence of learning technologies in the world of learning should be able to deliver the face of education toward a better and so challenge of PAI learning in a global era can be resolved, of course inseparable from the role of PAI teachers as educators demanded creative and innovative develop learning by integrating technology and learning.

²⁵ Gairola, (eds.), *Information and Communications Technology for Development* (New Delhi: Elsevier, 2004), p. 27.

²⁶ Kent Gustafson, *Survey of Instructional Development Models* (New York: ERIC Clearinghouse on Information Resources Syracuse University.1991), p. 52.

Learning Model in the Globalization Era

Learning is a process of creating an environment that enables the process of learning. Learning in terms is the activity of students to interact with the environment that produces behavioral changes that are relatively constant.²⁷

The learning process in the global era characterized by the demands of the students who have skills in: (a) critical thinking; (b) able in solving the problem; (c) innovative and creative; (d) control of ICT; (e) communication smoothly; and (f) multi language.²⁸ With the hope that students are able to compete and prosperous in the new century and to be able to face more risks in the uncertainty lives and situations. Globalization passes a series of major changes in the world order as a whole. This era was marked by the process of life worldwide, the progress of science and technology, especially in the field of transformation and cross-cultural communication as well as the occurrence. The changes that are brought about by globalization are also experienced by the world of education with teachers as practitioners.

Along with the above characteristics in the globalization era, PAI teachers must also face the challenges of a global society. In the global era, teacher are highly required to increase their professionalism as a teacher and educator. In addition to professionalism, teacher also have to face some key words, namely education, competition, transparency, efficiency, and high quality. From the social point of view, the global community will be very sensitive and concerned about the issues of democracy, human rights and environmental issues.

The challenge facing PAI teachers in the global era such as the development of science and technology are so rapid and fundamental;

²⁷ Burrow, "National Competency Standards for the Teaching Profession: a Hence to Define the Future of Schooling," in *Competencies* (Canberra: C. Collins, ACE, 1993), p. 29.

²⁸ Slamet Suyanto, *Teacher Education Programs At Deakin University: Moving from apprenticeship to School-Based Experience* (Melbourne, Australia: CDU.1997), p 82.

moral crisis that swept the nation and country, social crisis and a crisis of identity as a nation. All of that obviously requires prospective teacher are professional and qualified. Teacher education program should be able to provide excellent services to student so that they can print quality teacher. Improving the quality of education will foster public confidence so that still exist in the future.

As the implication of globalization and the reform, the change happens in the paradigm of learning. The change involves: *first*, the paradigm of learning-oriented process of teaching where the teacher is a resource center, shifted to the learning process oriented learning in which the student is the subject of learning. With so many alternative learning resources that can replace the function and teacher's role. *Second*, the paradigm of the traditional learning process oriented approach to classical and format in the classroom; it shifts to learning model that is more flexible, such as distance education system. *Third*, the quality of learning is a priority, the growing popularity of life long education and further melting the boundaries between formal and non-formal education.²⁹

Learning paradigm that has lasted more focused now days more focus in teacher in the transfer of knowledge, art and culture to student are now experiencing a shift to student position as the main subject of study. In conclusion, now days behaviorist learning paradigm has shifted towards learning paradigm constructivist that give more roles to the student to construct the experience and develop the skill that are needed by themselves in accordance with their mindset.

Richard Labelle said future society is the super-industrial society. To create these needs to be determined laden alternative assumptions about the type of job, profession takes between 20-50 years to come. From here will be formulated skills, cognitive, and affective that are

²⁹ Nyoman Dantes, *Perspektif dan Kebijakan Pendidikan Menghadapi Tantangan Global*, in <http://www.undiksha.ac.id/e-learning/staff/images/inginfo/4/7-7.pdf>, accessed in August, 21st, 2016.

needed to confront the changing acceleration.³⁰

The future is a complex period even the futurologist could no longer predict the future.³¹ Such being the case, the future of education should be able to educate people to be able to face future complexity. The purpose of PAI is directed to create human who are able to follow future condition.

While the characteristics of learning must be designed teacher in the perspective of learning technologies for the globalization era according to Nyberg, DA are: (1) the process to have and allocate information, (2) the process to have a high level of skills to generalize, (3) the process of having a strategy common to solve the problem, (4) the process of defining their own learning objectives, (5) the evaluation process of own learning outcomes, (6) a strong motivation and (7) the process in having the right concept.³² Therefore, PAI teachers have a very vital role and fundamental in guiding, directing, and educates student in the learning process.

According to Ebiefung, there are several globalization challenges that must be addressed by promoting teacher professionalism, they are³³:

1. The development of science and technology are so rapid and fundamental. With this condition PAI teachers should be able to adjust to the responsive, wise and prudent. Responsive means that teacher must be mastered the science and technology products, especially those related to education.
2. The moral crisis that hit Indonesia. Due to the influence of science and technology and globalization has been a shift in the

³⁰ Richard Labelle, *ICT formulation and e-strategy development: a comprehensive guidebook*. (Bangkok: UNDP-APDIP, 2005), p. 77.

³¹ Heinich, et.al., *Instructional media and technologies for learning*. (New Jersey: Printice-Hall, Inc.1996), p. 63.

³² Nyberg D.A, *Educational Leadership in an Age of Reform* (Yew York : Longman, 1990) p. 49.

³³ Aniekan Ebiefung, *Teaching Using the Internet* (Chattanooga: University of Tennessee at Chattanooga, 2009). p. 87.

values that exist in people's lives. Through education, PAI teachers have their own challenges to instill moral values in the younger generation.

3. The social crisis, such as crime, violence, unemployment, and poverty in society. As a result of industrial development and capitalism, it appears the social problems in society. They are weak in education, access and the economy will be the victim. It is a challenge of PAI teachers to respond to this reality through education.

4. The crisis of identity as a nation and state of Indonesia. Globalization also has weakened national identity our youth. For that, the PAI teachers as the guardian of values, including the value of nationalism should be able to provide awareness to students about the importance of nationalism in the life of the nation.

Responding to the issue, in improving the quality of learning, teacher must be able to develop three basic intelligences of student. Namely, intellectual, emotional and moral, those three elements must be inculcated in the student as strong as possible so imprinted in him. Another thing to note is the spiritual dimension of student teacher.

In conclusion, the teacher holds a strategic role in improving the quality of learning to master the four competencies, namely pedagogy, professional, personal and social competence to carry out duties as a professional educator. Besides competent, to improve the quality of learning should be supported by the application of learning technology in the form of collaboration between teacher and learning technology to design, develop, utilize, manage and evaluate the various media and learning resources in various forms of technology that can help meet the learning needs of student in accordance with level of cognitive development.

Interaction Dialectics and Reposition of PAI Teachers

The dialectical method is a method or a way to understand the dialogue. Which continuous and profound expectation of the people can solve the existing problem. There is the thought process of someone who is experiencing growth because it brings the idea with another idea that a dialogue between people. The goal is to develop a way to argue that the position of two-way and are expected to be known to each other.

The adult learning technology applications are such as process and product utilization of information and communication technology. This technology is used to solve the problems of education and learning. Therefore, the learning technology has many benefits to help achieve the goals of education. In order learning technology can serve well in the world of education and learning, will need to establish appropriate strategies and optimal utilization to solve strategic problems ranging from learning among other things on the quality, relevance, efficiency, effectiveness, and competitiveness of human resources.

Growth and development of learning technology has contributed to the education, especially in the learning process. One form of learning technology products is rapidly growing Internet in the late 20th century and on the threshold of the 21st century presence has a considerable impact on learning in class in various aspects and dimensions. The internet is one of the instrument in the globalization era has made the world into a transparent and connected very easily and quickly without knowing the limits of territorial or nationality.

Through the internet every student can access to the global world to obtain information in various fields and at the turn will influence the direction of the overall student action. The existence of the internet today is such a need modern learning issues in meeting the challenges of global development. This condition is certainly going to have an impact on the style and patterns of learning of students and teachers as a whole.

In this regard, every teacher who wants to survive and up to date in master and understand and then can apply their knowledge in the face of global challenges, need to upgrade their quality to adapt to the growing demand. Learning technology has changed the face of different learning with traditional learning process characterized by face-to-face interaction between teacher and student both in the classroom and outside.

In the globalization era, the information flow will be increased through the internet is global worldwide and requires teacher to adapt to the trend if not outdated. With this condition, then the teacher reposition in education, especially learning process sooner or later will reduce the role as the sole source of learning and is replaced by the existence of computers and the internet as the main tool.

In learning activities, student need guidance from teacher and from parents in the process of learning with ICT support. In this regard, the teacher holds a very important role and should master the subtleties of ICT and, more important is the ability to facilitate the children's learning effectively. The teacher's role as a conduit of information should shift into the learning manager with a number of specific roles, because the teacher is not the only source of information, but only one source of information.

According to Rosenberg, the widespread use of ICT there are five (5) shifts in the learning process, namely: (1) from training to performance, (2) from the classroom to where and at any time, (3) of the paper to the "on line" or channel, (4) physical facilities to network facilities, (5) of the cycle time to real time³⁴. Communication as a medium of education is done by using communication media such as telephones, computers, internet, e-mail, and so forth. Interaction between teachers and student are not only done through face-to-face but also done using these media. Teacher can provide service without having to deal directly

³⁴ Marc J. Rosenberg, *Beyond E-Learning—Approaches and Technologies to Enhance Organizational Knowledge, Learning, and Performance* (Amerika: Pfeiffer, 2006) p. 42.

with student. Similarly, student can obtain information in a wide range of different sources through cyber space or virtual space using a computer or the internet.

The most recent is the development of so-called “cyber teaching” or virtual learning, the learning process is done by using the internet. Another term that is increasingly popular today is e-learning is a learning model by using the media and information communication technology, especially the internet. According to Rosenberg, e-learning is the use of learning technologies in the form of internet in the delivery of learning in a broad range, which is based on three criteria, namely: (1) e-learning is the network with the ability to renew, store, distribute and share teaching materials or information, (2) delivery to end users via a computer using learning technology with the standard internet assisting, (3) focus on the most comprehensive view of learning beyond the traditional learning paradigm.³⁵

Currently e-learning has evolved in a variety of learning models based on ICT such as: CBT (Computer Based Training), CBI (Computer Based Instruction), Distance Learning, Distance Education, CLE (Cybernetic Learning Environment), Desktop Videoconferencing, ILS (Integrated Learning System), LCC (Learner-Centered Classroom), Teleconferencing, WBT (Web-Based Training). All based on the product application of learning technologies is the internet.

M.J. Kenning, and M.M. Kenning stated that in the future roles of teachers undergoing expansion that teacher can as a coach, counselors, managers of learning, participants, leaders, learners, and the author as follows:³⁶

1. As a coach, PAI teachers plays develop student learning according to their characteristics by providing principles and tips to learn effectively and efficiently.

³⁵ *Ibid.*, p. 76.

³⁶ M.J. Kenning and M.M. Kenning, *An Introduction to Computer Assisted language Teaching* (Oxford: Oxford University Press.1984), p. 68.

- 2. As with counselors, PAI teachers create a learning interaction situation in the psychological atmosphere conducive and no distance is rigid with the teacher. In addition, teacher is expected to be able to understand the condition of each student and help him towards optimal development.
- 3. As with manager, PAI teachers has the independence and autonomy of the widest in managing the overall learning activities by exploiting and using the entire software sources and learning supporting hardware in school.
- 4. As a participant, PAI teachers does not only behave teaching but also behaves learning from the interaction with the student. This implies that PAI teachers is not the only source of learning for the student, but he is as a facilitator of student learning.
- 5. As a leader, PAI teachers is expected to be able to become someone that can move the students to realize the behavior towards a common goal. Besides teaching, teacher should have the opportunity to manifest himself as a responsible party in various other activities out of teaching.
- 6. As an author, PAI teachers must always be creative and innovative to produce a variety of work that will be used to carry out professional duties. Teacher independent rather than as a plumber or technician must follow a standard guide, but as a creative force that is capable of producing a wide range of innovative work in the field. It should be backed by the power of abstraction and commitment as a basis the quality of professionalism.

Table 1: Repositioning Role of Teachers

Environment	Model of Repositioning Learning	
	Traditional	Era of Globalization
Class activities	Teacher as a central and didactic	Student as central and interactive

The role of teacher	Delivering the facts, the teacher as expert	Collaborative, sometimes students as experts
Given the emphasis of teaching	Remembering the facts	The relationship between information and findings
The concept of knowledge	Accumulation of facts in quantity	Facts transformation
Appearance in success	Assessment through norm reference	Quantity understanding, assessment benchmark reference
Assessment	Multiple choice questions	Portfolio, problem solving, and performance
The use of technology	Training and practice	Communication, access, collaboration, and expression

Relevance with the perspective of learning technology to the demands of globalization demand a change in the reorientation of PAI learning; (1) learning paradigm shift from ‘hidden assumption’ that knowledge can be transferred intact from the ‘brain or mind’ teacher from brain or student’s thoughts towards learning more ‘empowering’ all aspects of student’s abilities. (2) Shifts the paradigm of learning from a teacher-centered towards student-centered learning self-directed learning and self-understanding because it feels more empowering learning of students in all aspects. (3) shift from learning to ‘memorize’ concept towards learning ‘find’ and ‘build’ its own concept, which is proven to improve student’s ability to think critically, critically, creatively and skillfully solve problems, (4) shifting of learning classical individual toward cooperative learning groups not only to teach thinking skills, but also be able to teach students social skills.

The repositioning of PAI teacher’s role in modern learning, in line with the rapid development of learning technology, then there has been a shift in the view of learning both in the classroom and outside the classroom. In the traditional view in the past (and still exists at the present time), the learning process is seen as: (1) something that is hard

and heavy, (2) an attempt to fill a shortage of student, (3) the transfer and receipt of information, (4) individual or solitary process, (5) the activities carried out by describing the subject matter to units of small and isolated, (6) a linear process.

In line with the development of learning technology has been a change of views on PAI learning is learning as a: (1) the natural process, (2) social processes, (3) an active process of passive, (4) a linear process or not linear, (5) the ongoing process of integrative and contextual, (6) the activity is based on a model of strength, skills, interests and culture of student, (7) the activity is assessed based on the fulfillment of tasks, obtaining results and solving real problems either individually or in groups.

It has changed the role of teachers and students in learning. PAI teacher's role has changed from: (1) as a transmitter of knowledge, the main source of information, subject matter experts, and the source of all answers, that of a facilitator of learning, coach, collaborator, navigator of knowledge and learning partner; (2) of controlling and directing all aspects of learning, become more provide more alternatives and the responsibility to each student in the learning process. Meanwhile, the role of students in Islamic education has been amended as follows: (1) from passive information receiver to active participants in the learning process, (2) from reveal back knowledge into produces and wide range of knowledge, (3) from learning as individual activity into collaborating learning with other students.

Therefore, PAI teachers have a very vital role and fundamental in guiding, directing, and educates student in the learning process of Islamic education primarily as agents of change through a learning process³⁷, but the PAI teacher's role also will not be replaced by anyone or anything even with advanced technology, tools and media education, infrastructure,

³⁷ B. Davies, dan L. Ellison, *School Development Planning* (Essex: Longman Group U.K. Ltd, 1992), p. 70.

multimedia and technology is simply media or devices that are only used as a teacher's companion (friend-teacher partners). Perspective of ICT-based learning technologies for PAI teachers is opportunity and challenge to develop and utilize ICT in learning activities. ICT can be used to improve the quality and productivity of learning.

Conclusion

From the above description about the dialectics of learning technology in the globalization era can be concluded that more needs to be done by PAI teachers to address learning problems in the global era. Most major PAI teachers should make the development of ICT to become a partner in the design of innovative learning and integrative accordance with and psychological characteristics of student. Some things that they are can do associated with the above problems are as follows: (1) The shift in community values due to social changes more quickly this should be offset by an adjustment in the field of learning technologies. It means that technology must be in accordance with the needs of the people who always experience changes so that learning technology is not left with the developments taking place in society; (2) We should always seek their new innovations related to the kinds of learning technologies; (3) PAI teachers should always be able to master existing technology so that the student have confidence in teacher. That mastery can be done by holding a workshop or seminar for teachers related to technological mastery.

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