

Revitalization of the Role of Recently Madrasah Teacher: Modern Learning Perspective and Utilization of ICT in the Globalization Era

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Abstract

The era of globalization requires strength of human resources (HR) formidable and qualified to play in the global arena. Teaching and learning scenario need to be prepared carefully in a learning curriculum to improve the quality standards of education, efforts to the implementation of technology, especially information and communications technology (ICT) in the learning system at the school by using the internet in teaching and learning is expected to be able to be implemented more easily, quickly, efficiently, and effectively. By utilizing of ICT teachers can create animations or simulations to help students learn abstract concepts, dynamic, and complex. Students can learn, by identifying, developing, organizing, and using all sorts of learning resources. Madrasah teachers also no longer are used as the only one reference of all knowledge but rather as a facilitator or consultant in the learning process and Results in Madrasah.

Keywords: *Revitalization, Teachers, ICT, Madrasah*

Abstrak

Era globalisasi mempersyaratkan sebuah kekuatan sumberdaya manusia (SDM) yang tangguh dan mumpuni untuk bermain dalam perbatasan global. Skenario mengajar dan belajar perlu disiapkan secara matang dalam sebuah kurikulum pembelajaran untuk meningkatkan standart mutu pendidikan, upaya penerapan teknologi khususnya teknologi informasi komunikasi (ICT) di dalam sistem pembelajaran di madrasah dengan menggunakan internet diharapkan proses belajar mengajar dapat dilaksanakan lebih mudah, cepat, efisien, dan efektif. Dengan memanfaatkan ICT guru bisa membuat animasi atau simulasi untuk memudahkan siswa mempelajari konsep yang abstrak, dinamis, serta kompleks, siswa dapat belajar, dengan cara mengidentifikasi, mengembangkan, mengorganisasi, serta menggunakan segala macam sumber belajar.

Guru madrasah juga tidak lagi dijadikan satu satunya rujukan semua pengetahuan tetapi lebih sebagai fasilitator atau konsultan dalam proses dan hasil pembelajaran di madrasah.

Kata Kunci: *Revitalisasi, Guru, ICT, Madrasah*

Introduction

The history of growth and development possible of *Madrasah* in Indonesia is a consequence of the effect of intensive educational reform Islam in the Middle East modern times. Karel Steinbrink indicates that Islamic education evolved from Islamic boarding schools, *Madrasah* and schools, so that *Madrasah* in Indonesia is regarded as a further development of the educational model of Islamic boarding school or prayer-house.¹ Although now, legally *Madrasah* position is same with schools, especially in the aspects of the curriculum,² but *Madrasah* in general still maintains his trademark as a distinctively Islamic school.

In the globalization era, as now, people are increasingly making the *Madrasah* as an educational institution that is able to bridge between the development of science and technology are developing rapidly to avoid the phenomenon of demoralization, dehumanization along with the development and advancement of technology and material civilization. The era of globalization is an era in which any information can be received and absorbed by the entire Population of the earth, without the barriers that can hinder.

Seeing this phenomenon, education is a factor that can be used as a guarantee for the development of human resources, so that it can face the challenges of globalization with the digital information era. Similarly, education in *Madrasah*, which are more likely to carry the mission of religiosity, also must participate in it. By equipping the students with the power of faith, piety, knowledge, and skills impartial so as to bring the students on condition ready to face all the challenges of globalization era.

The era of globalization requires strength of human resources (*HR*) formidable and qualified to play in the global arena. To get their efforts,

¹ Karel A Steenbrink, *Pesantren, Madrasah, Dan Sekolah* (Jakarta: LP3ES, 1994), 78.

² Nuansa Aulia, *Permendiknas No. 22 Tahun 2006 Tentang Standar Isi Untuk Satuan Pendidikan Dasar Dan Menengah* (Bandung: Grasindo, 2008), 54.

conceptual, and tactical need to be done by Muslim thinkers, though this is hard work. This will include the strategic planning of education, its agencies, to the short-term training to prepare qualified human resources who are ready to face the era of globalization, in all ranks and levels of society.³

Madrasah as one of the strategic media in creating quality human resources needs to be contextual reflected the need for a new format in order to address the societal conditions that must be addressed seriously both conceptually, strategically and practically. There is no other way to fix the slump Muslims besides developing a system of education that is rooted in the values, principles and objectives of Islam.⁴ Borrowing the term al-Faruqi: it is essential to improve the quality of Islamic education students and teaching staff.⁵ This is because the *Madrasah* aims to prepare students to take the perfection of human society in the face of which boils down to approach closer to *Allah SWT*.

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 brought about by globalization are also experienced by the world of education such as educational institutions *Madrasah* teachers as practitioners. The challenge facing *Madrasah* teacher in the globalization era, such as the development of science and technology are so rapid and fundamental; moral crisis that swept the nation and the state, social crisis and a crisis of identity as a nation. All of that obviously requires *Madrasah* teachers were professional and qualified as a teacher and educator.⁶ In addition to professionalism, *Madrasah* teachers also have to face some key words, namely education, competition, transparency, efficiency, and high quality.

³ Qodri Azizi, *Melawan Globalisasi; Reinterpretasi Ajaran Islam Persiapan SDM Dan Terciptanya Masyarakat Madani* (Yogyakarta: Pustaka Pelajar, 2003), 121.

⁴ Isma'il Raji al-Faruqi and Abu Sulayman, *Islamization of Knowledge: General Principles and Workplan*, Second Edition (Herndon: IIT, 1989), 17.

⁵ Isma'il Raji al-Faruqi, *Islamization of Knowledge: Principles and Prospective*, in *Islam: Source and Purpose of Knowledge*, First Edition (Herndon: IIT, 1988), 23.

⁶ Kunandar, *Guru Profesional: Implementasi Kurikulum Tingkat Satuan Pendidikan (KTSP) Dan Sukses Dalam Sertifikasi* (Jakarta: Rajawali Pers, 2007), 19.

In the world of education today is always changing progress in the learning process, the system, which is already there is considered to be less relevant to current developments. With the sophisticated information systems in all fields, including in terms of education as an effort to increase student achievement *Madrasah*, but it can improve the quality of learning that is being conducted by the *Madrasah*. *Madrasah* teachers must have a method of learning that can help students to facilitate teaching and learning more effective.

Ability and understanding of *Madrasah* teachers to ICTs are influenced among others by perception. *Madrasah* teacher's perception as a result of a mental process produces shadows so he can recognize objects with the association on a longer memory. Mental process that is developed is a positive thing that teachers are aware of the existence and function as the transferor values, ideas and concepts to their students.

In national policy, ICT is key in 2 things: (a) the efficiency of the process, and (b) to win the competition. Likewise, the Islamic educational institutions (*Madrasah*). Responsibility *Madrasah* in entering the era of globalization should be to prepare students for all the challenges that are rapidly changing in our society. These causes the *Madrasah* are required to be able to produce superior human resources who can compete in this global competition. Improving the quality and ability of students can be done easily, by utilizing the Internet as the land to access the widest possible knowledge. This can be done by incorporating ICT as an approach in the learning process at the *Madrasah*.

Teaching methods by using conventional approaches by teachers at the school in the form of repetition or recurrence cause learning and mastery of the material being taught less than the maximum and also students less able to think critically. For the use of ICT in learning have more advantages for the time being. But in reality, the use of ICT by *Madrasah* teachers in the learning system is still separate from the realization of everyday life that should could be a self-study interactive media.

ICT applications by *Madrasah* teacher should be one of the media that takes advantage of technological developments is for the transformation process of conventional education into digital form, both the contents and

system for accessing teaching materials, interact with the contents of teaching materials, teachers and other students, and get help learning during the learning process, to be able to acquire the knowledge, construct the understanding, and grow through learning experiences.

The Prospect and Challenges of *Madrasah* Teachers in the Era of Globalization

The progress of a country is determined by how education is implemented. On education in *Madrasah*, teachers as an important component in education act as teachers and educators for students. Therefore, teachers have a great responsibility in achieving the educational advancement of the nation. Teachers with high professionalism and want to dedicate to education, it will generate and print quality education Human Resources (*HR*) quality as well.

The era of the 1990's in Indonesia and then rolling the discourse of the "*new paradigm*" of national education in tune with the spirit of reform that was raging across the country. As if finding its moment, experts, practitioners and education bureaucrats then formulate various references as responding anticipation in preparing human resources for the global arena. The new paradigm is then formulated in principles that are contained in the new direction of development of national education; broadly include such things as the following:

1. Equality of treatment education sector with other sectors.
2. Education oriented social reconstruction.
3. Education in order to empower the nation.
4. Empowerment of the social infrastructure for the advancement of national education.
5. Standing alone formation and empowerment to achieve excellence.
6. The creation of a climate conducive to the growth of tolerance and consensus in diversity.
7. Integrated planning horizontally (*between sectors*) and vertical (*between levels*).
8. Learners oriented education.
9. Multi-cultural education.

10. Education with a global perspective.⁷

As the sub-national education systems, in order not to be eliminated from the mainstream of national education, Islamic education institutions, especially the *Madrasah* should immediately reposition itself in accordance with the spirit of change in the era of globalization. Although to be honest recognized the challenges that are faced by the *Madrasah* is larger and heavier than the public schools, moreover when it is associated with its reality objective,⁸ in which the general Islamic educational institutions faces internal problems that have not been resolved until now. According Azyumardi Azra & Jamhari, challenges and internal problems of *Madrasah* after the modernization and globalization challenges of today and the future, in general is associated with three things:

1. The type of education that is selected and implemented.
2. The institutional identity issues.
3. Strengthening the institutional and management.⁹

From the above explanation, *Madrasah* as sub national education system, the *Madrasah* should immediately reposition itself in accordance with the spirit of change in the era of globalization is to improve the quality of education one of which is achieved through increased professionalism of teachers who are not just knowledge of technology and management, but more of an attitude and professional development at a high skill with behavior as required. *Madrasah* teachers who are professionals should be teachers who have the ability and skill to create optimal learning outcomes. Further sensitivity in reading the signs of the times, as well as having an intellectual insight and forward-thinking, never feel satisfied with the knowledge on him.

According to Isjoni that future teachers who can improve the quality of learning can be characterized as follows:

⁷ Burhanudin and Dina A, *Mencetak Muslim Modern: Peta Pendidikan Islam Indonesia* (Jakarta: Raja Grafindo Persada, 2006), 6.

⁸ Mastuhu, *Dinamika Sistem Pendidikan Pesantren: Suatu Kajian Tentang Unsur Dan Nilai Sistem Pendidikan Pesantren* (Jakarta: INIS, 1994), 17.

⁹ *Ibid.*, 12.

1. *Planner*, which means that teachers have a clear personal work program.
2. *Innovator*, it means that it has the will to carry out reforms with regard to the learning patterns including methods of teaching, learning media, systems and evaluation tools.
3. *Motivator*, meaning that teachers are able to have the motivation to continue learning and learning and certainly will also motivate their students to learn and learn.
4. *Capable*, meaning that teachers are expected to have the knowledge, skills, and the skills and attitudes are more stable and adequate to be able to effectively manage the learning process.
5. *Developer*, meaning that teachers want to continue to develop and transmit capabilities and skills to their students and for everyone.¹⁰

Teachers also be one of the determining factors in the context of improving the quality of education and create quality of human resources because teachers are frontline dealing directly and interact with the students in the learning process. Good quality education can be achieved by a professional teacher with all of their competence. There is also a sense of responsibility demonstrated professional in doing something.

According to Hadari Nawawi, assignment of teachers as educators and teachers is intended to assist parents in meeting the need to provide supplies to children in order to earn a decent living after reaching maturity later.¹¹ Then the teacher should be able to perform its functions, including *teaching* which is to transfer knowledge, *training* is guiding skills, and coaching is to empower the individual potential of each student who becomes his protege. Therefore, according to Mulyana, teachers must be able to act as surrogate parents (*loco parentis*).¹²

The performance of teachers in the learning process according to Subroto, is the ability or proficiency of teachers in creating an atmosphere communication educative between teachers and learners that includes the

¹⁰ Isjoni, *Gurukah Yang Dipersalahkan? Menakar Posisi Guru Di Tengah Dunia Pendidikan Kita* (Yogyakarta: Pustaka Pelajar, 2006), 24.

¹¹ Hadari Nawawi, *Organisasi Kelas Sebagai Lembaga Pendidikan* (Jakarta: Gunung Agung, tt., 1985), 6.

¹² Rohmat Mulyana, *Mengartikulasikan Pendidikan Nilai* (Bandung: Alfabeta, 2004), 88.

atmosphere of cognitive, affective, and psychomotor an effort to learn something by planning up to the stage of evaluation and follow-up in order to achieve teaching purposes.¹³ Some of the indicators that should be owned by capable *Madrasah* teachers are, among others:

1. Possess and develop the competencies of attitude, knowledge and skills are integrated.
2. The science of the integration of the science of religion and the public.
3. The diagnosis of learning materials.
4. Diagnosing ratings learning.
5. Using a collaborative learning model.
6. Controls and use of information technology and
7. Has the dynamics of life.¹⁴

Teacher performance, continued Subroto, can also be interpreted as a teacher's job performance achievement, among others, determined by the ability and effort. Teacher job performance can be seen from how far teachers have completed its task in teaching compared to the standards work. Then the teacher's performance can be interpreted also as an achievement of the objectives of the teachers themselves and the purpose of education and teaching of school or *Madrasah* where the teacher is teaching.¹⁵

The prospect of *Madrasah* teachers in the era of globalization in the modern context it becomes quite interesting when linked to the phenomenon of significant changes to the system and curriculum of *Madrasah* before the result of the development of individual educational system and fairly loaded with Islamic education. Recent developments indicate that the *Madrasah* has been making adjustments to the demands of globalization, which is a milestone for the establishment of *Madrasah* "modern" with a completely different image of the classical *Madrasah*.

In this context, *Madrasah* teachers should not see globalization as a thing to be feared but should be faced. Globalization is also often described as the era of information and openness, liberalization, free markets,

¹³ Suryo Subroto, *Proses Belajar Mengajar Di Sekolah* (Jakarta: Rineka Cipta, 1997), 3.

¹⁴ Amri Sofan, *Pengembangan Dan Model Pembelajaran Dalam Kurikulum 2013* (Jakarta: PT Prestasi Pustakarya, 2013), 54.

¹⁵ *Ibid.*, 3.

competition, and the era of regional and global cooperation. This era with all its development is inevitable, but it must be faced, with a reasonable attitude. As recommended by Ziauddin Sardar, that the challenges of new information technologies must be faced not with excessive optimism or pessimism is closed, but with the act of consideration.¹⁶

Avoid globalization as a process of natural or entirely eliminate the negative impact of globalization is not possible. Like it or not, ready not ready, globalization must be faced with accepting any impact, negative or positive. Therefore, the challenges faced by the *Madrasah* and her teachers are: How does the world of Islamic education, especially *Madrasah* can get the most positive impact (*opportunities*) globalization and minimize the negative impact (*the threat of*) it. The question then is how *Madrasah* teachers are able to organize learning in the age of globalization so that graduates are able to survive in this era and may play an important role in the global life without losing their identity as Muslim Indonesia.

Such conditions obviously a challenge for *Madrasah* teachers, in order to address the dilemma between progress of science and humanitarian crisis. In this context *Madrasah* teachers in educational institutions that refer to the classical Islamic educational patterns are required in response to globalization wisely, so as not to fall behind in the globalization process but also not undermined by the roots of Islamic tradition.

At the national level, globalization has led to charges against *Madrasah* teachers to be able to find and formulate a “*new paradigm*” in accordance with national education paradigm. Based on the formula “the Directions of National Education Basic view” which is included in the New Paradigm of Education put forward some frame of reference in formulating educational paradigm, namely: global principled Education and educational role in preparing learners in a global society constellation. Finally, at the local level of education global perspective, education is still obliged to preserve the local character in a global perspective of education.¹⁷

¹⁶ Ziauddin Sardar, *Tantangan Dunia Islam Abad 21* (Bandung: Mizan, 1988), 18.

¹⁷ Fasli Jalal and Dedi Supriadi, *Reformasi Pendidikan Dalam Konteks Otonomi Daerah* (Yogyakarta: Adicita Karya Nusa, 2001), 16–18.

Although expression, aspirations, and expectations of people to *Madrasah* is diverse, but substantially we could conclude the similarities.

The first expectations and foremost of community towards Islamic education is that Islamic education remains perform their role and their main function includes:

1. The transmission of sciences and knowledge of Islam (*transmission of Islamic knowledge*).
2. The maintenance of Islamic tradition (*maintenance of Islamic tradition*).
3. Reproduction (*candidates*) ulama (*reproduction of scholars*).

The second expectation is that the students do not only know the science of religion, but also know the general knowledge or vice versa does not only know the general knowledge, but also excelled in the science of religion. *The third* expectation, so that students have the skills, expertise or life skill-particularly in the fields of science and technology into the character and features of globalization which in turn enable them to have the basics of competitive advantage in employment, as required in the era of globalization.¹⁸

A good reason why teachers have a dominant influence on the quality of *Madrasah*. Teacher is a director and actor in the learning process. In his hand the quality learning process is created. With good learning atmosphere, of course, implies also the good or his quality output of a school. *Madrasah* quality and qualified teachers are like two sides of a coin that is equally precious and valuable, very interplay to exist in the era of globalization.

Ideally, an educator in the era of globalization, according to Abdullah Idi, he needs to have some of the characteristics

1. Has a commitment to professionalism, the inherent of dedication attitude.
2. The science and is able to develop and explain their function in life, explaining the dimensions of the theoretical and practical or once did

¹⁸ Mastuhu, *Dinamika Sistem Pendidikan Pesantren: Suatu Kajian Tentang Unsur Dan Nilai Sistem Pendidikan Pesantren*, 17.

transfer of knowledge, internalization and 'amaliyah (implementation).

3. Educate and prepare students to be able to be creative and be able to manage and maintain both his creation to not cause havoc for themselves, society and the natural surroundings.
4. Able to be a model or a central identification or a center role model or example and consultant for the participants of their students.
5. Have a sense of intellectual and information as well as affecting knowledge and expertise and ongoing and seeks to educate students.
6. Responsible for building the civilization the nation's qualified in the future.¹⁹

These problems are a challenge that must be faced in an era of global madrasah teachers to be able to develop into a classy modern education.²⁰

Utilization of ICT for Education in Madrasah

Alessi M. Stephen argued that learning is essentially a transactional communications reciprocal among both teachers and students and students and students with a learning environment in an effort to get learning objectives.²¹ Effective learning is then performed through a model or strategy of learning, which is a conceptual framework that describes a systematic procedure in organizing learning experiences to achieve certain goals, which serves as a guide for learning designers and teachers in planning and implementing learning activities.²² According to Nur that research results can not provide results yet that fit the strategy or learning are most effective, because each lesson is very dependent on:

1. The specificity of interest and the type of students.
2. In common, namely the management of returned material learned into the new.

¹⁹ Abdullah Idi, *Sosiologi Pendidikan, Individu, Masyarakat Dan Pendidikan* (Jakarta: Raja Grafindo Persada, 2013), 56.

²⁰ Supian Hadi, "Penyelenggaraan Madrasah Di Era Globalisasi," July 20, 2016, <http://supianhadi.blogspot.com>.

²¹ Alessi M. Stephen and S.R., Trollip, *Computer Based Instruction Method & Development* (New Jersey: Prentice Hall, 1984), 90.

²² Neviyarni, *Modul Bahan Belajar Mandiri Program D-II PGSD: Strategi Pembelajaran* (Jakarta: Pusat Teknologi Komunikasi dan Informasi Pendidikan. Departemen Pendidikan Nasional, 2005), 13.

3. Effective monitoring.
4. The student's personal conviction of the usefulness of the results that they want to study hard.²³

According to some education experts, there are four factors that cause the quality of teachers in our country is weak, namely (a) the authority who actually handed over to the teacher, (b) quality supervisor in monitoring and controlling the behavior of the teacher, (c) the freedom given to teachers (both inside and outside the classroom), and the relationship with his teacher, (d) the teacher's knowledge (*which would affect his own confidence*)²⁴ To overcome the lack of teacher quality that ICT is not just helping teachers, but almost could replace a teacher, because it can be designed as "*teaching aids*" for the implementation of learning through the medium of text, audio, video and animation are integrated and packaged in a package of interactive media-based computer, This is called advanced electronic multimedia. Multimedia technology is the main supporter of open learning and learning concepts based on various resources (*resource based learning*), in which the learning activities at the school must provide direct experience (*hands on experience*) in the use of advanced technology in the learning process.

From learning the meaning of the above there is a core meaning that learning must contain elements of communication and information. Thus the product and process technology required in learning according to these characteristics. Thus technology is directly related to the learning of ICT (*Information Communication and Technology*).

In more concise, Harun, Jamaluddin and Zaidatun Tasir, expressed there is strong linkage between Information and Communication Technology, more information technology in information processing systems while functioning communications technology for the delivery of information (*information delivery*).²⁵ Learning with ICT at the school to integrate both elements of information technology and communication technology into the

²³ Muhamad Nur, *Proses Belajar Mengajar Dengan Metode Pendekatan Keterampilan Proses* (Surabaya: SIC, 1998), 52.

²⁴ Said Suhil Ahmad, "Model Pelatihan Profesional Guru" (the Intersectoral Meeting of the Education Sector, Pekanbaru, 2013).

²⁵ Jamaluddin Harun and Zaidatun Tasir, *Multimedia Dalam Pembelajaran* (Malaysia: PTS Publications & Distributors Sdh, Bhd., 2003), 17.

Information Technology and Communications with the aim of students and teachers have the competence to use information technology as the hardware and software to process, analyze and transmit data by observing and utilizing communications technology to facilitate communications and information technology products produced useful as communication tools and learning materials, to improve the quality of learning.

In modern learning, *Madrasah* teachers are expected to optimally utilize ICT to facilitate innovative learning activities. Strategies and methods of student-centered learning are very suitable in order to encourage the development and *Madrasah* students' knowledge and skills. According to Wagner that in this globalized world of students is not enough to know the information and given the facts, but they must be able to think critically, and to resolve the problem, and have the skills to communicate and work together.²⁶ In addition, students must be able to adapt, take initiative, able to access and analyze the information and have a high curiosity.

Potential of ICT usage in learning them is to improve the learning activity, increase efficiency and quality of learning and teaching.²⁷ Additionally, with the creativity of teachers, ICT also potentially be used in a variety of subject matter taught in *Madrasah* which has characteristic of abstract, dynamic, tough and skill through animation and simulation. According to Capi Riyana that ICT can support the optimization of the school, because of the potential of ICT is quite large, including:

1. Expanding learning opportunities.
2. Increase efficiency.
3. Improve the quality of learning.
4. Improving the quality of teaching.
5. Facilitate the establishment of skills.
6. Encouraging sustainable lifelong learning.
7. Improve policy planning and management.
8. Reducing the digital divide.²⁸

²⁶ M Wagner, "Pedagogic Reasoning: Issue And Solutions For The Teaching And Learning Of ICT In Secondary Shool Education And Information Technologies," *Journal Educational Technology* 7 (3) (2002). 237-255

²⁷ Hadi, "Penyelenggaraan Madrasah Di Era Globalisasi," 3.

²⁸ Capi Riyana, *Media Pembelajaran* (Bandung: CV Wacana Prima, 2008), 90.

In the modern and innovative learning process, we can see how ICT affects the way students and teachers in a socially connected, interact and communicate with their friends. This will encourage *Madrasah* teachers to learn continuously and do not neglect to harness the potential of ICT in the planning and management of learning.

During this time, *Madrasah* teachers are required to carry out the activities of active learning, participatory *da fun*. According to Endang, teachers can apply the model of active learning, innovative, creative, effective and fun by engaging students to participate actively during learning process.²⁹ To realize such a learning model in need of creative ideas and innovative *Madrasah* teachers in selecting and designing learning strategies. ICT can be applied innovatively in all stages of learning activities ranging from making lesson plans, preparation of materials, presentation materials, learning implementation, and evaluation. By utilizing ICT teachers can create animations or simulations to help students learn abstract concepts, dynamic, and complex.

Implications of the use of ICT in modern and innovative learning are the obtaining of active learning, collaborative, creative, integrative, and evaluative.³⁰ Learning with ICT (*hypermedia, simulation, animation*), helps students explore, inquiry, and analysis of new information appropriately and accurately. Students do not just memorize facts but they are facilitated to construct new knowledge based on experience or their mindset, so that learning becomes active and very interesting

In conclusion, in this era of global *Madrasah* teachers should be able to address the increasingly familiar students with cutting-edge ICT devices and versatility of the flow of information. Inevitably teachers must redefinition their role, model of learning and teaching materials that emphasize the importance of contextually, diversifitas, and flexibility.

²⁹ Endang Mulyatiningsih, *Pembelajaran Aktif, Kreatif, Inovatif, Efektif Dan Menyenangkan (PAIKEM)* (Jakarta: Ditjen PMPTK, 2010), 76.

³⁰ Shreya Vinay Patil, "The Role of ICT in Educational Sector," *Lokavishkar International E-Journal* 1, no. IV (2012).

Revitalization of Madrasah Teachers and ICT Applications in Innovative Learning

The word “technology” is often understood by general people as something that is in the form of machinery or matters relating to machining, but actually educational technology has a broader meaning, for educational technology is the combination of elements of human, machine, ideas, procedures, and management,³¹ then the understanding will become clearer with the understanding that the essence of technology is the application of science or other organized knowledge into practical tasks.³²

The existence of the technology should be interpreted as an effort to improve the effectiveness and efficiency and technology can not be separated from the problem, because it was born and developed technology to solve problems faced by humans. In this regard, the educational technology can also be viewed as a product and process.³³ In line with this, the birth of learning technologies born from the problems in education. The educational issues that stuck out today, includes equalization of educational opportunities, improve the quality or the quality, relevance and efficiency of education.

Serious problems that are still felt by education from primary education to higher education is a quality problem, of course, this can be solved through technological approach learning. There are three basic principles of learning technology as a reference in the development and utilization, the systems approach, oriented to students, and the use of learning resources.³⁴ The principle of a systems approach means that education and learning needs to design or redesign using a systems approach. In designing the learning necessary procedural steps include the identification of a problem, situation analysis, and identification of objectives, learning management, determination methods, and the determination of

³¹ Nasution, *Berbagai Pendekatan Dalam Proses Belajar Dan Mengajar* (Jakarta: Bumi Aksara, 2003), 76.

³² Galbraith J, *Designing Complex Organizations*, Reading, Mass (Addison: Wesley Publishing Company, 1973), 17.

³³ S. Sadiman Arief, *Media Pembelajaran, Pengertian, Pengembangan, Penempatan* (Jakarta: CV Rajawali, 1984), 73.

³⁴ *Ibid.*, 82.

learning evaluation media.³⁵ Student-oriented principle means that the learning should be focused on students with attention to the characteristics, interests, and the potential of the students.

The principle use of learning resources in the learning means students should be able to take advantage of learning resources to access the knowledge and skills that they need. One more important thing that learning technology is a field that emphasizes the aspects of student learning. The success of learning is done in an educational activity is how students can learn, by identifying, developing, organizing, and using all sorts of learning resources.

Information and communication technology (*ICT*) have three main functions used in the learning activities, namely:

1. Technology serves as a tool (tools), in this case the typewriter used as a tool for the user (*user*) or students to help learning, for example in word processing, work with numbers, create graphic elements, create a database, create an administrative program for students, teachers and staff, personnel data, the financial and so forth.
2. Technology serves as science (*science*). In this case the technology as part of the disciplines that must be mastered by the student.
3. Technology serves as the materials and tools for learning (*literacy*).

In this case the technology is defined as a learning material as well as the tools to master a competency of computer aided this case a computer has been programmed in such a way that students are guided gradually by using the principle of learning due to master competencies. In this case the positioning technology not unlike a teacher who serves as a facilitator, motivator, transmitters, and evaluators. The deductive thinking way (*deductive thinking*) like this does not bring a lot of radical changes related to the use of ICT than when thinking in inductive way (*inductive thinking*).³⁶

People who think with *deductive* way, first look for the problem to be solved and then evaluate a number of alternative solutions that will be used.

³⁵ V.G Galrach and D.P. Ely, *Teaching and Media. A Systematic Approach* (Englewood: Prentice Hall, Inc, 1971), 103.

³⁶ Michael Hammer and James Chamy, *Reengineering the Corporation: "A Manifesto for Business Revolution* (New York: Harper Collins Publisher, 1993), 52.

If you want to optimize ICT utilization in the organization, the managers or leaders should think *inductively*. The potential of ICT should be recognized well in advance, then look for a problem that may be solved. This problem may even previously unrecognized or is not regarded as a problem.

According to Resnick, there are three important things that have to be rethought related to the modernization of education.

1. How we learn (*how people learn*).
2. What we learned (*what people learn*).
3. When and where we learn (*where and when people learn*)³⁷

By looking at the answers to these three questions, and the potential of ICT can be used as described above, then the role of ICT in education modernisasi nation can be formulated. The question of how we learn is associated with a method or model of learning. How to interact between teachers and students is crucial learning model. Related to this, according to Pannen, now days happens the shift learning paradigm that is associated with the dependence on the teacher and the teacher's role in the learning process.³⁸ The learning process should not be 100% dependent on the teacher again (*instructor dependent*) but more centrally to students (*student-centered learning or instructor independent*). Teachers also no longer are used as the only one reference of all knowledge but rather as a facilitator or consultant.³⁹

ICT interventions that could be done in this model are very clear. The presence of *e-learning* at all levels of variation has facilitated this change. In general, *e-learning* can be defined as learning delivered through all electronic media including the internet, intranets, extranets, satellite, audio/video tape, interactive TV, and CD room.⁴⁰ According to Kirkpatrick, *e-learning* has

³⁷ M Resnick, "Rethinking Learning in the Digital Age," *Dalam Porter, M. E., Sachs, J. D., Dan McArthur, J. W. The Global Information Technology Report 2001-2002: Readiness for the Networked World.*, 2002.

³⁸ P. Pannen, "Pemanfaatan ICT Dalam Pembelajaran" (Seminar of Sun Commitment in Education and Research Industry, Jakarta, 2005).

³⁹ Resnick Halliday, *Fisika Jilid 1* (Jakarta: Erlangga, 1984), 51.

⁴⁰ P. Anderson, "What Is Web 2.0? Ideas, Technologies and Implication for Education," *JISC Technology and Standards Watch*, February 2007.

encouraged democratization of teaching and learning by providing greater control over learning to the students.⁴¹

In general, *e-learning* intervention in the learning process can be grouped into two: the *complementary and substitution*. The first assumes that the way of learning with face-to-face meetings are still running but coupled with ICT-assisted interaction model, while the second mostly ICT-assisted learning process is done. Currently, the regulations issued by the government have also facilitated the use of *e-learning* as a substitute for conventional learning process.

Information technology, particularly is the Internet, in this case provides an opportunity for it. When and where learning is done is a question that needs to be rethought his answer. Should it be in the classroom in a certain time or unlimited space and time? Face-to-face learning model that many limit the time and place of learning. As a *complement* (or *substitution*), *e-learning* technology exists to give students the freedom to choose the place, time and rhythm of learning.⁴² The interaction facilitated by ICT can occur synchronously (*at the same time*) or asynchronous (*at different times*).

Therefore, in another language, Hoic-Bozic and Natasha identify that the successful implementation of *e-learning* is dependent upon an assessment of whether:

1. E-learning has made it a necessity.
2. Availability of supporting infrastructure such as telephone and electricity
3. The availability of internet network facilities and an internet connection.
4. Learning software (*learning management system*).
5. The ability and skills of people to operate.
6. Policies that support the implementation of *e-learning* program.⁴³

⁴¹ D. Kirkpatrick, *Who Owns the Curriculum*, Dalam B. Brook Dan A. Gilding "The Ethics and Equity of E-Learning in Higher Education" (Melbourne: Equity and Social Justice, Victoria University, 2001), 41-48.

⁴² *Ibid.*, 50.

⁴³ Natasa Hoic-Bozic and dkk., "Blended Learning Approach to Course and Implementation," *IEEE Transactions on Education* 52 (2009).

In a broader context, namely in management education, based on the study of the objectives of the ICT in the world's leading education in America, Alavi and Gallupe find some purpose utilization of ICT that can be used by *Madrasah* teachers in teaching, namely

1. Improving competitive *positioning*.
2. Improving the *brand image*.
3. Improving the *quality of learning and teaching*.
4. Increasing student *satisfaction*.
5. Increasing revenues.
6. Expanding base of *students*.
7. Improving service *quality*.
8. Reducing operating *costs*.
9. Developing of *new products and services*.⁴⁴

Therefore, it is not surprising that today many Islamic educational institutions, especially *Madrasah* in Indonesia in demand to invest in the ICT field to win the competition is getting tighter.

In addition to helping create the learning conducive conditions for students' mental, the second vital role of information technologies and communication in the learning process is to provide a set of media and tools (*tools*) to facilitate and accelerate students' work, and of course gives skills using high technology (*advanced skills*). According to Reeves, for the sake of learning in school, there are two basic approaches in the use of ICT, which students can learn 'from' and 'to' technology. Learning from technology done as in the use of computer-based instruction (*tutorial*) or integrated learning systems.⁴⁵ Learn 'with' technology is the use of technology as cognitive tools (*tools of cognitive learning*) and using technology in a constructivist learning environment (*constructivist learning environments*).

⁴⁴ M. Alavi and R. B. Gallupe, "Using Information Technology in Learning: Case Studies in Business and Management Education Programs," *Academy of Management Learning and Education* 2 (2) (2003). 139-153

⁴⁵ T. C. Reeves, *The Impact of Media and Technology in Schools. A Research Report Prepared for the Bertelsmann Foundation* (Amerika Serikat: University of Georgia, 1998), 23.

In integrating ICT into the learning process by Woodbridge and modified or developed into a model modern learning gained some important notes of the model are as follows:⁴⁶

1. Technology (ICT) plays a role in three functions: *first*, to create the conditions of learning fun and exciting (*emotional effect*); *second*, skills equip students for school; *Third*, the technology serves as *learning tools* with application programs and utilities, which, in addition to simplify and speed up the work, also reproduce many variants and techniques of analysis and interpretation.
2. Positive emotions, skills in using technology, and proficiency in utilizing the programs and utilities that is the provision and positive *conditioning* to the development of intellectual abilities of students through: (a) the development of the ability to create, manipulate, and learning; (b) practice with tasks based problem solving; (c) establish a constructivist learning environment.

Recognizing the foregoing, the education should be proactive towards ICT advances that impact directly or indirectly on the social changes that occurred in the middle society. To achieve effectiveness and efficiency of education management, the education process is essential to consider the progress of science and technology, especially the rapid development of information and computer technology (ICT). No exception, that the management of education and learning in *Madrasah* environment will achieve higher effectiveness and efficient, when in the managerial activity and instructional can optimally utilize of ICT.

Thus the problem-solving effort of learning by *Madrasah* teachers in the approach of learning technologies in collaboration with ICT products are characterized with the role and function of learning technologies as theory and practice in terms of design, development, utilization, management, and evaluation of resources and learning processes effectively, efficiently and have appeal.

⁴⁶ J. Woodbridge, "Technology Integration as a Transformation Teaching Strategy," July 13, 2016, www.techlearning.com.

Conclusion

In conclusion, improving the quality of learning can be done by using technology approach in learning, that is by seeking and identifying problems that are faced in learning then be resolved through the application of learning technologies. Efforts to solve education problems, especially the problem of quality of learning, can be done through the use of various sources of learning and the use of media that serves as a tool and increase levels of student learning outcomes. Some applications of learning technologies that can be used as alternatives to choose from are: the use of ICT as a learning resource, use of ICT in multimedia presentations, the use of ICT for learning media, the use of ICT in computer-based interactive learning, ICT standards development for operational procedures, the use of ICT as a learning resource.

ICT is not merely helping *Madrasah* teachers, but almost could replace a teacher, because it can be designed as “*teaching aids*” for the implementation of learning through the medium of text, audio, video and animation are integrated and packaged in a package of computer based interactive media. This is called multimedia technology. Multimedia technology is the main supporter of open learning and learning concepts based on various resources (*resource based learning*), in which the learning activities in schools must provide direct experience (*hands on experience*) in the use of advanced technology in the learning process.

Multimedia technology in learning can be said to be an opened self-learning model of opened learning concept in *Madrasah* or based on various sources (*resource based learning*) will change the function of *Madrasah* teachers in the classroom-which is not only the sole source of learning and to develop methods of teaching in the classroom. The concept of opened learning concept means *Madrasah* teachers do not only have learning resources (books) and one method (speech) but can do variations in learning so that students become active. Sources opened learning can be derived from the Internet, Radio, Television, Tape Recorder, CD Player, computers, a natural laboratory (*community*) and the others that can be applied in learning.

Suggestion, now days there is a shift of learning paradigm associated with the dependence on the teacher and the teacher's role in the learning process of the application of ICT. The learning process should not depend on the teacher again (*instructor dependent*) but more centrally to students (*student-centered learning or instructor independent*). *Madrasah* teachers also no longer are used as the only one reference from all knowledge's but rather as a facilitator or consultant in the learning process and results in *Madrasah*.

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