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Educational Programme Approach towards Out-of-wedlock Pregnant Teenagers

Siti Suhaila Ihwani¹, Azahar Yaakub¹, Norhafizah Musa¹, Adibah Muhtar¹ and Zetty Nurzuliana Rashed²

¹Universiti Teknologi Malaysia, Malaysia ²Kolej Universiti Islam Antarabangsa, Malaysia

Abstract

Pregnancy and birth of a child out of wedlock with regard to sex before marriage stems from free association, incest and rape cases which happens in today's society. In Malaysia, the shelter homes services for out-of-wedlock pregnant teenagers were established to help those who had being exposed to sexual abuse and in urgent need of protection. The objective of this study is to identify the suitable educational programme to be implemented in the shelter home, in order to help character formation among teenagers whom are pregnant out of wedlock towards becoming better individuals. This qualitative study is based on previous studies, books, journals and documents dealing with the issue of out of wedlock pregnant teenagers.

Keywords: teenager, out of wedlock pregnancy, illegitimate child

INTRODUCTION

Research has shown that an average of 18,000 teenage girl in Malaysia get pregnant every year. About 4500 cases or 25% out-of-wedlock pregnant involving teens are reported. Previous studies showed the involvement of teenagers in risky sex behaviour has started as early as childhood. Teenagers engagement in sexual activity at a young age is seen as a problem and should be addressed seriously by all walks of life. Teenagers who engage in sexual activity at young age are inviting adverse effects on one's emotion, physical and social aspects.

A journal analysis study conducted by Mohd Azri et. al. (2015) analysed 30 journal articles around the year 2000 to 2014. Most of the journal articles reviewing on teenager pregnancy cases because of its increasing trend from year to year; meanwhile Sabah and Sarawak are the two states with highest number of pregnant teenager cases which is 62.2%. Until the year 2013, there are 510,462 illegitimate children registered with the Department of Social Welfare. Based on the result obtained, the study (by Mohd Azri et. al., 2015) has identified six main factors that caused teenager pregnancy which were: 1) Poverty; 2)

Practising sex before marriage; 3) No monitoring by the parents; 4) Low academic achievement; 5) Influence of peers; and 6) Little knowledge about sex, reproduction and health. Most of the articles analysed by Mohd Azri et al. (2015) conducted their studies at the shelter homes which place teenagers who are pregnant out-of-wedlock.

Thus, the programmes implemented in shelter homes should be re-assessed to ensure that the teenagers who stayed there are able to change towards becoming a better individual.

PROGRAMMEME APPROACH

This paper has identified three main approaches that can be implemented by the shelter homes in the attempt to reform the morals of troubled teenagers to become better person. The three approaches are: the method of solving the problem, family system approach, and religious and moral values approach.

Problem Solving Approach

A variety of approaches can be implemented in eradicating increasing social problems such as pregnancy out-of-wedlock. Among the proactive approaches that can be put into practice is exposure to problem solving skills. Problem solving skills involves the process of thought. The thought process can be defined as "the process of restructuring the concept or idea in relation to matters that is being thought about which involves a number of activities to sort ideas or expect hidden things, making conclusions to obtain knowledge or new skills to be used for solving problems that are increasingly challenging". (Abdul Said, Mohd Yusof, Baharom, Shukri, Muhamad Suhaimi, and Roslee, 2014). The synthesis of this definition can be understood such as the following: proper thinking skills are able to make a person gains knowledge, skills, and solve the problems at hand.

According to Haslinda (2016), guidance and counselling is one of the facilities implemented in Baitul Ehsan, Sabak Bernam, Selangor and it circulates upon fostering problem solving skills to the trainees. Education and spiritual guidance to the trainees were emphasised and directly it emphasised on the importance of religion and moral values. Her research focused on the effectiveness of Teenager's Characteristic Spiritual Rehabilitation Module; however, through the module detailed, it describes three aspects to educational programme approach.

In difference to Haslinda, Mahmudi (2016) stressed about the role of Islamic guidance and counselling onto the issues of teenager's out of wedlock pregnancy. Looking at Mahmudi's proposed resolution ways, it can be seen that it is one of the problem solving

skills because the role of a counsellor is guiding the individual with difficulty in resolving the problem. Although in the study conducted, Mahmudi did not focus onto the problem solving skill, the role of guidance and counselling itself indirectly defines the skills to solve problems.

Therefore, it is important for teenagers to be exposed to techniques and skills in problem solving. Min (2015) studied the social adaptation of teenagers who are married as a result of pregnancy out of wedlock in Jetis, Bantul, Indonesia. The results showed that the related teenagers failed to control the problems they faced and this led to actions that are forbidden in Islam. In other words, they were not able to solve the problems based on the Islamic Shariah. However, Min (2015) did not state information regarding the need of problem-solving skills but only highlighted the problems faced by the related teenagers. Indirectly, problem solving skills becomes the requirements to the issue of pregnancy out-of-wedlock.

Family System Approach

Daily news which reports various cases regarding teenagers involved in pregnancy out of wedlock is one of the issues of concern. Statistics by the Ministry of Health in the year 2015 revealed that a total of 3,980 teenagers aged 10 to 19 years are pregnant out of wedlock (Utusan, 2016). Life in the age of modernity has its own various hurdles and challenges in the upbringing of children. This is because various social diseases that can destroy Muslim civilisation had struck the teenagers. Thus, it is seen that the strength of family system plays a major role in addressing these social issues. The family institution plays an important role in curbing and also eradicating the problem of teenagers to become pregnant out-of-wedlock. This is because the first and foremost education for every human originated from home. Parents play an important role to educate their children about the limits of socialising and also regarding incest crime. This matter is clearly explained in the hadith by Prophet Muhamamd SAW:

Means: "It had been told to us by Adam had been told to us Ibnu Abu Dza'bi from Az Zuhriy from Abu Salamah bin 'Abdurrahman from Abu Hurairah radliallahu 'anhu who said; Prophet PBUH said: "Every child is born on al-fitrah but hte parents convert him to Judaism, Christianity or a Fire-worshipper as an

animal delivers a perfect animal baby. Do you find it mutilated?" (Sahih Bukhari, Hadith 1296)

In fighting the social problem, parents should be playing their roles in raising, educating and pouring enough affection to their children as expressed in a Malay proverb like balancing a cupful of oil. The strength of family system is deemed important in the effort to curb social problems which lead to the social campaign held massively, "My Home My Paradise" which stated that home is likened as the paradise which guarantees the strong bond of a family (Jamaliah Malia, 2014). Thus, the parents need to respond to the challenge in handling their teenage children from being exposed to the pregnancy out-of-wedlock.

Indeed, children are a trust given by God to parents. Each of the parents will be questioned regarding the trust bestowed to them. This is clearly explained in the saying of Prophet Muhammad PBUH; which means "a husband is leader of his family, and he will be asked responsibility upon his family. A wife is the leader for the household, husband and children, and will be accountable upon those she leads. A servant is the leader for his master's property, and he also will be asked responsibility over what he leads. Know that each of you are leaders, and each of you will be asked upon your responsibility" (Muslim Narration, Hadith 3408). With explanations of the hadith, parents shall perform this responsibility as well as possible. Work demand in gathering money and materials should not deny the children's right to have some time spent with the family. Results of studies show that the failure of parents in managing the children is the cause of the occurrence of pregnancy out of wedlock and the role of the family institution can solve the social problem by showing good example from the parents, religious education, monitoring children behaviour and so on (Salasiah et. al., 2014). Indirectly, the study by Salasiah et. al. (2014) proves that family systems approach is important in addressing the issue of teenager's pregnancy out-ofwedlock.

Sarnon et al. (2012) reviews about teenagers getting pregnant out of wedlock and found that understanding the teen is the basis for the family intervention. This means that understanding the development of the teenagers involved with the problem of pregnancy out of wedlock and proposing the theory of system approach, crisis intervention and problem solution that can be implemented into a family bound by the problem of teenage pregnancies out-of-wedlock. Susantin (2015) found that parents' supervision is important for teenagers who become pregnant out of wedlock by giving the three forms of supervision and one of them is educating the characteristic and by disciplining the children. Thus, this study gives

emphasis to family systems approach in dealing with such issues. In difference with the study conducted by Disa (2012), the study was focused on teenagers who were pregnant out of wedlock due to sexual harasment, or in other words, not due to the desire of the teenagers themselves but was forced onto them by irresponsible adult. According to Disa (2012), the support of family and friends is important for teenagers who are involved with the concerning issues.

Other than that, the parents and the other family members need to play their role by monitoring the acts as well as the well-being of the teenagers. Good monitoring will be able to contribute to the eradication of the social problem (Prisaria, 2012) such as pregnancy out-of-wedlock. The parents need to be proactive in taking the initiatives to contact the school or teacher to identify problems faced by their children from time to time. With the realisation of such effort, parents, teachers and the school can be cooperative and unite in finding the best resolution for the teenagers (Jamalia, Malia, 2014).

Not only that, parents should always show good examples in front of their children. To ensure that children always practise good behaviour, the parents play fundamental prior roles by showing the positive speech and behavior. This is because children always observe the words and actions of their parents. In fact, most of the speech and behavior of parents are being copied by children. This matter in agreed by Stapa, Ismail, and Yusuf (2012) in their writing entitled "The Social Environmental Factors and its Relation with the Formation of Self", they claimed that the formation of one's self is influenced by the parents. Hence, the parents must strive to improve their parenting skills from day to day in order to ensure that they are able to do their best in educating their children. This matter can be referred in Surah Luqman on how Luqmanul Haqim strives to educate his children to become a high quality Muslim to the race and religion (Luqman, 13-19):

Means: "And (remember) when Luqman said to his son while he was instructing him: O my son, do not associate (anything) with Allah, indeed association with Him is great injustice (13). And We have enjoined upon men (care) for his parents. His mother carried him. (increasing her) in weakness upon weakness, and his weaning is in two years. Be grateful to Me and to your parents; to Me is the (final) destination (14).....)"

Other than parents, a family system also has other members such as brother and sister. The brother and sister also have a role in helping to prevent issues of pregnancy out-of-wedlock. This is because in a situation of parents who had to go out to support the family's

living, the brother and sister may act as an agent in monitoring other siblings on behalf of their parents. Every member in the family needs to know the trust and responsibility they carry during their parents' abscence. This help can assist and facilitate the dealings of parents and other family members. However, this does not mean that parents may neglect their responsibility altogether. Parents should always be alert with their children's activities so that they can be protected from social problems. Thus, it is obvious that harmonious family system plays a huge role in curbing the issue of pregnancy out-of-wedlock.

Religious and Moral Values Approach

Religion is a foundation in human life; human life without religion is like life without direction. With directions and true religious foundation then humans are capable to drive their life on the right path and to protect one from all the negative and destructive elements. This is clearly said by Prophet Muhammad PBUH in the hadith, that as long as Muslims hold on to the Quran and sunnah then they will never go astray;

Means; "From Abu Hurairah, r.a., from Prophet PBUH he said: "I have left among you two matters which will never lead you astray as long as you hold to them: the Book of Allah and sunnah of His Prophet," (Imam Malik).

Religious and moral values are among the significant components in the construction of a good and civilised society. Through religious and moral values approach, there are a range of social problems that can be solved. This includes the problem of pregnancy out-of-wedlock. This is admitted by Fauziah et. al. (2015) in her study entitled "Group Counselling Application towards Self-concept, Depression and Resilience of Teenagers whom are Pregnant Out-of-Wedlock". She found that, Human Centric Group Intervention and Ad-Din Cognitive Psychology Group Counselling enhance self-concept, reduce depression and increase the resilience of teenagers whom are pregnant out of wedlock. Based on these findings, it can be concluded that the two interventions that utilised religious and moral values are capable of eradicating the problem of pregnancy out of wedlock.

Indeed, the problem of pregnancy outside of marriage is caused by the damned deed forbidden by Allah SWT in the Quran which is adultery. If a Muslim truly hold on to the guidance as explained in the Quran and Sunnah, then the problem pregnancy out of wedlock can be prevented from the its root. A clear sign in the Quran which stated that approaching adultery is a wrong deed; which means: "And do not approach unlawful sexual intercourse.

Indeed it is ever an immorality and is evil as a way (which brings destruction)" (Surah al-Isra: 32). According to Ibn Kathir, the prohibition of committing adultery and also matters that leads to adultery as the causes and callings. From Abu Hurayrah, the Prophet PBUH said:

Means: "Verily Allah has written for the son of Adam his inevitable share of adultery whether he is aware of it or not: The adultery of the eye is the looking (at something which is sinful to look at), and the adultery of the tongue is to utter (what it is unlawful to utter), and the innerself wishes and longs for (adultery) and the private parts turn the yearning into reality or refrain from submitting to the temptation." (Hadith narrated by al-Bukhari and Muslim)

This clearly shows the degree of conscientious Islam has in protecting its followers from getting involved in pregnancy out of wedlock. Early prevention must be conducted in order to ensure that the worse social problems will not occur. This is further explained in a lot of recent researches as disclosed by Ghani, and Loganathan (2010); Kamal (1998) and Zahrin, Sawai, Zaini & Kasri (2014). According to Kamal (1998), the lack of religious education has become one of the reasons to the increase in social problems in the society these days. Thus, when religious approach is carried out optimumly by teenagers hence social problems like pregnancy out of wedlock can be curbed. This matter is approved by Ghani and Loganathan (2010) about the importance of religious knowledge approach in overcoming social issues. In the article written in 2010 on "Lifestyles of Teenagers in Tanjung Peteri Resort Secondary School, Pasir Gudang, Johor" he stated that teenagers who have a good understanding of religion will indirectly demonstrate negative responds towards social issues.

As a sequence of this issue, depravity of the increasing social problems can now be prevented by reforming strong spiritual through religion (Norfadilah and Zakaria 2014). When the true religion is understood and practised, then indirectly good moral and spiritual will be formed. This is because Islam itself is a religion that came to build good characteristic and morals. And indeed Rasullullah PBUH is the best example, as he was sent by Allah SWT to improve human moral character. Rasullullah PBUH said "I came for the completion of good moral character." (Narrated by Bukhari). Islam recognises that the perfection of a believer's faith can be seen through their moral conduct "the most perfect Mukminin was he who has the best behaviour between them, and the best among you is he who is the best to his wives "(Al-Tirmidhi).

CONCLUSION

Based on past researches, there are three approaches that can be used by shelter homes in providing effective programmes to the trainees, namely problem solving skills, family systems approach and the emphasis on religion and moral values. The studies suggest that a follow-up study was to be conducted upon teenagers who have been out of the shelter homes and stay with the community to assess their current well-being. Apart from that, the study also suggested that researches are conducted in relation to the perception of male teenagers who are involved with sex out of wedlock and also studying the perception of young husbands.

References

Al-Quran

- Prisaria, N. (2012). Hubungan Pengetahuan dan Lingkungan Sosial terhadap Tindakan Pencegahan Penyalahgunaan Napza pada Siswa SMA Negeri 1 Jepara (Doctoral dissertation, Fakultas Kedokteran).
- Jamaliah Malia. (2014). Peranan Ibu bapa dalam mengatasi masalah remaja. Retrieved from 24/11/2017
 - http://bmutkspm.blogspot.my/2014/01/peranan-ibu-bapa-dalam-mengatasi.html
- Abdul Said, A., Mohd Yusof, A., Baharom, M., Shukri, Z. dan Muhamad Suhaimi, T., dan Roslee, T. (2014). Menerapkan kemahiran berfikir. Minda Pendidik Retrieved from http://eprints.ums.edu.my/8398/1/nc0000003879.pdf
- Utusan Online (Sepetember, 2016). 3,980 remaja hamil anak luar nikah.
- Stapa, Z., Ismail, A. M., & Yusuf, N. (2012). Faktor Persekitaran Sosial Dan Hubungannya Dengan Pembentukan Jati Diri (Social Environmental Factors And Their Relation To Identity Formation). *Jurnal Hadhari: An International Journal*, 155-172.
- Susantin, J. (2015). Urgensi kontinuitas pengawasan orang tua terhadap pergaulan anak: studi pada anak hamil di luar nikah. *KARIMAN: Jurnal Pendidikan Dan Keislaman*, 3(1), 121-132. Retrieved from
 - http://ejournal.kopertais4.or.id/madura/index.php/kariman/article/view/1800
- Fauziah, M. S., Mohammad Aziz Shah, M. A., Norazani, A., Mohd Noor, I., & Che Anuar, C. A. (2015). Aplikasi kaunseling kelompok terhadap konsep kendiri, kemurungan dan daya tahan remaja hamil luar nikah. *Jurnal Bitara Edisi Khas (Psikologi Kaunseling)*, 8, 64-87.

- Salasiah, H. H., Rosmawati, M. R., Mohd Al-Adib, S., Fariza, M. S., Zainab, I., & Zuliza, M. K. (2014). The role of the Muslim family in dealing with adolescent out of wedlock pregnancy. *Mediterranean Journal of Social Sciences*, 5(29), 101-106.
- Sarnon, N., Mohamad, M. S., Fauziah, I., Alavi, K., Nen, S., Hoesni, S. M., Zaizul, R., Wan Azreena, J. (2012). Hamil luar nikah: Memahami remaja sebagai asas intervensi keluarga. *Journal of Social Sciences and Humanities*, 7(1), 121-130.
- Disa, D. F. (2012). Resiliensi pada remaja putri yang mengalami kehamilan tidak diinginkan akibat kekerasan seksual. *Jurnal Penelitian dan Pengukuran Psikologi*, *1*(1), 55-62.
- Min, J. K. W. (2015). Identifikasi penyesuaian sosial remaja yang menikah akibat hamil di luar nikah di kecamatan Jetis, kabupaten Bantul. *Jurnal Bimbingan dan Kaunseling*, 4(3), 1-16.
- Haslinda, M. (2016). Keberkesanan modul kerohanian pemulihan akhlak remaja di Baitul Ehsan daerah Sabak Bernam, Selangor. *Proceedings of the International Conference on Education towards Global Peace*, 1-73. url: http://www.iium.edu.my/capeu2016/wp-content/uploads/2017/02/017.pdf
- Mahmudi, I. (2016). Peranan bimbingan dan konseling islami dalam menanggulangi kehamilan di luar nikah. *Counsellia: Jurnal Bimbingan dan Konseling*, 1(1).
- Kamal, A. H. (1998). *Profil juvana dan pengurusan pemulihan di Asrama Pokok Sena, Kedah.* (Unpublished Master Dissertation, Universiti Utara Malaysia).
- Ghani, F. A., & Loganathan, T. (2010). Gaya Hidup Remaja Di Sekolah Menengah Kebangsaan Tanjung Peteri Resort, Pasir Gudang, Johor. Universiti Teknologi Malaysia.
- Zahrin, S. N. A., Sawai, R. P., Zaini, M. S. F., & Kasri, A. (2014). Pendekatan Dakwah Melalui 'Konsep Cinta Muslim'dalam Menangani Masalah Sosial. *Al-Hikmah*, 6(1), 21-34.
- Norfadilah, A. R., & Zakaria, S. (2014). Pembangunan kerohanian berasaskan al-Muhasibi dalam menangani gejala sosial masa kini. e-Proceeding of the International Conference on World Conference of Integration Knowledge (WCIK), 69-89. url: https://worldconferences.net/proceedings/wcik2014/wcik%20paper
- Mohd Azri Mohd Suan, Adibah Hanim Ismail & Haliza Ghazali. 2015. A review of tennage pregnancy research in Malaysia. *Med Malaysia* Vol 70 (4): 214-219.

Islamic Psychotheraphy Theories in Treating Soul Crisis: A Study on Cancer Patients

Norhafizah Musa, Azahar Yaakub, Siti Suhaila Ihwani, Adibah Muhtar and Akmaliza Abdullah

Universiti Teknologi Malaysia, Malaysia

Abstract

This paper aims to discuss the theories related to Islamic psychotherapy in addressing the problem of the soul. This study focuses on Islamic psychotherapy treatment against breast cancer patients. This is a concept paper which describes Islamic psychotherapy theory which can be applied to breast cancer patients to treat soul problems that the patients face.

Keywords: psychotherapy, breast cancer, soul problem

INTRODUCTION

Psychotherapy is medication on nature of mind, or more precisely, is defined as any medication and treatment of the soul problem through psychological methods. This term covers a variety of techniques intended to assist individuals in overcoming emotional disorders. An individual is able to improve themselves to overcome psychiatric disturbances by way of modifying behavior, thoughts and emotions until the individual is able to develop himself in overcoming psychiatric problems. Warson and Morse stated that psychotherapy is a specific form of interaction between two people, namely, the patient and the therapist.

Chaplain in his book views that psychotherapy is healing through religious beliefs and discussions between patients with someone.

Corsini also formulates that psychotherapy is a formal process of interaction between two parties. Each party usually consisted of one person, but there is a possibility of two or more people at any party. This statement is the same as formulated by Prawitasari who says that psychotherapy is the formal process of interaction between two or more parties in which one party is a group of professionals who extend their help, and the other party is groups that

¹ Singgih D. Gunarsa, Konseling dan Psikoterapi, 155-156. Lihat juga Leslie S. Greenberg & Antonio Pascual-Leone, "Emotion in Psychotherapy: A Practice-Friendly Research Review," Journal of Clinical Psychology, May (2006), 612.

² Hamdani Bakran Adz-Dzaky, *Psikoterapi dan Kaunseling Islam: Penerapan Metod Saintifik*, 228. Lihat juga Barbara Depreeuw, Sharon Eldar, Kristina Conroy & Stefan G. Hofmann, "Psychotherapy Approaches," *International Perspectives on Psychotherapy* (2017), 35.

want the help. Second, Corsini and Prawitasari also suggest that the purpose of this interaction is to go on a change or healing and improve the situation which intimidate the party that requires aid, which is the patient or client.³

Psychotherapy also has the meaning of extreme emotional treatment, which disrupt the equilibrium of three forces in the human psyche which is the mind, physical and emotion. Psychotherapy is a series of methods based on psychological knowledge that is applied to overcome soul or mental disturbance of individuals involved. Muslim doctors who perform psychotherapy is al-Rāzi and Ibn Sina. Psychotherapy is one of the branches of therapy from Islamic psychology. Islamic psychology refers to *nafs* knowledge or soul or psychiatry in the Islamic world, particularly during the Islamic golden era (8A.D.-15 A.D. century) to the modern century (20 A.D. - 21 A.D. century).

Apart from that, some even described psychotherapy as healing of illnesses through psychiatry based on religious values, but it does not mean changing the faith and belief of the patient unless only to raise their spiritual strength in the process of healing along with other therapy referred to as religion psychotherapy. Meanwhile, Islamic psychotherapy also brings similar meaning namely the process of medication and healing of disturbance be it mental, spiritual, moral or physical disorder through the guidance of the Qur'an and al-Sunnah of Prophet Muhammad (PBUH) or even greater, through guidance and the shari'a of Allah SWT.

According to 'Arifin, psychotherapy can be termed or defined as al-istish $f\bar{a}$ ' bi al Qur'an wa al Du' \bar{a} ', which is healing of diseases and psychiatric disturbances based on guidance with the values of the Qur'an and prayers. The same thing has been mentioned by Imam Fakhr al- $d\bar{n}$ al- $R\bar{a}zi$ in his tafsir which states that the Qur'an in its entirety can serve as $shif\bar{a}$ ' or remedy against various spiritual and physical diseases. Meanwhile Muhsin al- $F\bar{a}$ 'id

³ Darojat Ariyanto, "Psikoterapi dengan Doa", *Jurnal Suhuf Fakultas Agama Islam Universitas Muhammadiyah Surakarta. Indonesia*,, vol. 18, no. 1 (2006), 3-26. Lihat juga Barbara Depreeuw, Sharon Eldar, Kristina Conroy & Stefan G. Hofmann, "Psychotherapy Approaches," 35-36. Lihat juga Johana E. Prawitasari et al., *Psikoterapi Pendekatan Konvensional dan Kontemporer* (Yogyakarta: Unit Publikasi Fakultas Psikologi UGM, 2002), 2.

⁴ Iin Tri Rahayu, *Psikoterapi Perspektif Islam dan Psikologi Kontemporer* (Malang: UIN Press Malang, 2009), 192.

⁵ AM. Diponegoro, *Psikologi Islam*, 14. Http://eprints.uad.ac.id/5145/1/PSIKOLOGI%20ISLAM.pdf.

⁶ Arifin Isep Zaenal, *Bimbingan Penyuluhan Islam Pengembangan Dakwah Melalui Psikoterapi Islam* (Jakarta: Rajawali Pers., 2009), 240-244.

⁷ Hamdani Bakran Adz-Dzaky. Psikoterapi Dan Kaunseling Islam: Penerapan Metod Saintifik, 222.

⁸ Arifin Isep Zaenal, Bimbingan Penyuluhan Islam Pengembangan Dakwah Melalui Psikoterapi Islam, 23.

⁹ Imam Fakhr al-Din Muhammad Ibn `Umar al-Razi, *Tafsir Al-Fakhr al-Razi Al-Mushtahar bi al-Tafsir al-Kabir Wa Mafatih Al-Gha'ib* (Beirut: Dar al-Fikr, 1995), 33-35.

al-Kashānī in his tafsir suggested that the Qur'anic verses can cure physical illnesses, whereas its meanings can cure soul or psychiatry illnesses. Therefore, the researcher views psychotherapy as the knowledge of soul therapy that uses psychological methods to change individual behaviours, thoughts and emotions through interactions between clients with therapists with the aim to healing the emotions, behaviour and the mind as well as strengthening the spiritual aspect.

PSYCHOTHERAPY CONCEPT IN ISLAM

Islam as a religion that contains high spiritual values is found available to solve psychological problems of men. The content of the teachings of Islam such as faith, worship and sufism is found to have a systematic methodology for developing mental health. When the content of the teachings of Islam can help create mental health, then it is deemed as the early natural measures in the efforts to form psychotherapy methods. As the recovery method that will be utilised is the method sourcing from Islamic sharia, then the method can be referred to as Islamic psychotherapy.

In Islamic teachings, in addition to worldly psychotherapy, there is also *ukhrāwī* psychotherapy. *Ukhrāwī* psychotherapy is the guidance and grace (*'ata'*) of Allah SWT based on ideological and theological framework of all psychotherapy. While worldly psychotherapy is the result of ijtihad (effort) of man. Both modules of psychotherapies are equally important, like two sides of a coin. The approach of Islamic psychotherapy is based on *psycho-teo-antropo-centric* framework which is a psychology based on the power of God and the human efforts.¹¹

Moreover, Islamic psychotherapy is divided into two categories. First, a worldly form of approaches and techniques of psychological medication after understanding psychopathology in real-life. Worldly psychotherapy is the result of human efforts in the form of therapy techniques or psychiatric medications. Second, an $ukhr\bar{a}w\bar{\imath}$ (the hereafter) approach, in the form of guidance on moral values, spiritual and religious and both psychotherapy modules are interrelated between one to the other. 12

¹⁰ Muhsin al-Fa'id al-Kashani, Al-Shafi fi Tafsir Kalam Allah (Mashhad: Dar al-Murtada li al-Nasr, 1091), 213.

¹¹ Muhammad Sakura, *Psikoterapi Islami Untuk Kesehatan Mental & Spiritual* (t.t.p.: Xenosakura Dragon SPC, 2016), prakata.

¹² Nurul Fitriani, "Implementasi Psikoterapi Islam dalam Mengatasi Problematika Psikologis Mahasiswa STAIN Salatiga: Studi di Biro Konsultasi Psikologi Tazkia STAIN Salatiga Tahun 2011," (Disertasi Sarjana Pendidikan Islam, Indonesia, Salatiga, 2011), 38.

According to Adz-Dzaki, the purpose of Islamic psychotherapy is to provide assistance to an individual so that he is healthy physically and spiritually or having mental, spiritual and moral health. Islamic psychotherapy is not merely to heal men from illness, but it also aims to improve the internal quality or the soul of a person. Islamic psychotherapy is a medication and healing process through the guidance of the Qur'an and al-Sunnah of Prophet Muhammad (PBUH) or empirically through guidance and teaching of Allah, his angels, his messengers, or heir of his Prophets.¹³

According to Fuad Anshori, Islamic psychotherapy is the effort of soul healing (*nafs*) of human spiritually based on guidance of the Qur'an and al-Hadith, with analytical methods based on observation and ma'rifat towards humans. ¹⁴ Islamic psychotherapy is an effort of Islamisation of knowledge. The method used is through enlightenment and application of Quranic and al-Sunnah values. The content of the Qur'an or al-Sunnah taken are content related to the problem of faith, worship and sufism. The capacity of the faith, worship and sufism has spiritual values that can be used as psychotherapy method. Psychotherapy such as this could create human psychology into a calm, serene, comfortable and able to manifest mental health. The concept of Islamic psychotherapy is a new study that can be made as a psychotherapy methodology for mental health, manifesting happiness and achieving serenity.

Islam is a religion from Allah SWT revealed to the Prophet Muhammad (PBUH) with rational teachings which can help mankind to achieve prosperity, peace and happiness in life. Islam contains various dimensions of Islamic rules and laws for the betterment of mankind, give solution to the questions made by human, and hence is able to form a strong *muttaqīn* community. To

According to Abdul Mujib and Jusuf Mudzakir, psychotherapy in Islam is able to heal all aspects of psychopathology, whether of a worldly, ukhrawi or modern human diseases based on expression from 'Ali Ibn Abi Talib, such as the following:¹⁸

¹³ Hamdani Bakran Adz-Dzaky, Psikoterapi dan Kaunseling Islam: Penerapan Metod Saintifik, 3.

¹⁴ Fuad Anshori, Agenda Psikologi Islami (Yogyakarta, Indonesia: Pustaka Pelajar, 2002), 181.

¹⁵ Nurul Fitriani, "Implementasi Psikoterapi Islam dalam Mengatasi Problematika Psikologis Mahasiswa STAIN Salatiga: Studi di Biro Konsultasi Psikologi Tazkia STAIN Salatiga Tahun 2011," 29.

¹⁶ Harun Nasution, Islam Rasional (Bandung: Mizan, 1997), 23.

¹⁷ Muhammad `Uthman Najati, Al-Quran wa 'Ilm al-Nafs (Kaherah: Dar al-Shuruq. 2001), 235.

¹⁸ Abdul Mujib & Jusuf Mudzakir, *Nuansa-nuansa Psikologi Islam* (Jakarta: Raja Grafindo Persada, 2001), 164.

"There are five types of medication for the soul namely, reading the Qur'an while trying to understand the meaning, performing night prayers, mingling with the good or righteous people, committing a lot of shaum or fasting and reciting zikr at night at lengthy time. Whoever is able to conduct either one from the five types of medication, Allah will grant his wishes (by curing the diseases he suffers from)."

THE PURPOSE OF PSYCHOTHERAPY IN ISLAMIC TREATMENT

Psychotherapy is a method in Islamic treatment aimed to introduce ways that can help human to solve psychiatric problems. Below is a detailed description about the purposes and goals of psychotherapy introduced in Islamic treatment.

1) Giving information

Problems or conflicts that are often faced by individuals or patients who came to get Islamic treatments usually related to lack of information about the problems that they face. For example, lack of knowledge on the best way to deal with a problem, the source of the problem, and the party that should they meet. Other than that, a psychotherapy sessions conducted can also give clear idea (understanding) to the patient in relation to the problem faced.¹⁹

2) Encouraging of opening mind

Often, patients who come for treatment are confused about the problems they face. Some of them think that the problems or conflicts stem from the others or the surrounding. Although the problem actually stems from the patient itself without them knowing it. Counselling sessions conducted may assist patients in getting to know themselves (understanding self and the environment) and help the patients to note that he himself is the key to controlling the problem that happens to him. This explains that the patient himself has an advantage in resolving the problem on his own in addition to help from the treatment attendant.²⁰

3) Giving support

Support, warmth and praise is a significant side element in human life. Therefore, the mental and moral support is very important to patients with personal, soul and related

¹⁹ Salasiah Hanin Hamjah & Noor Shakirah Mat Akhir, "Islamic Approach in Counseling," *J Relig Health*, vol. 53 (2014), 279-289.

²⁰ Khairunnas Rajab, "Nilai-Nilai Holistik dalam Kaunseling Islam," Afkar, vol. 17 (2015), 25-50.

problem. Unwavering emotional support, sincerity and warmth and the feelings projection highlighted by treatment attendant during therapy sessions can reduce the burden of problems encountered.²¹ In order to provide support to patients, a therapist should implement that the actual support comes from Allah SWT; the concept of pray, dependency towards Him and not easily giving up should necessarily be emphasized. Asking for support from Allah SWT by praying during facing tribulations is the teachings emphasized by the Prophet (PBUH) as in a Hadith narrated by Ibn `Abbas,

Translation: "The Prophet when facing hardship will say:" There is no God other than Allah, the Almighty and most Merciful, there is no God except Allah, Cherisher and the Lord of 'Arasy." ²²

The habit of not giving up easily must be emphasised in the process of therapy in an effort to provide support to the patient so that they become brave in facing life's trials. It is crucial to explain that each test that occurs comes with wisdom. This is mentioned in the word of Allah SWT in surah al-Baqarah, verse 156 and 157.

Translation: "(That is) those who, when afflicted by any difficulty, they said: "Verily We belong to Allah and to him we return." They are people who have plenty of benefits from their Lord and his mercy; and they are the ones who are guided in His way."

SOLUTION TO CONFLICT OR ISSUE

Generally, we have all already grasp the impression that psychotherapy is closely related to problem solving. Each session conducted should be able to help the patient going through his difficulty even though not being able to solve it as a whole. If the therapy sessions can be carried out very well by the treatment attendant, indirectly it will be able to reduce the tense faced by patients. Thus the therapy sessions can also help patients to receive

²¹ Khairunnas Rajab, "Nilai-Nilai Holistik dalam Kaunseling Islam," 43.

²² Al-Bukhārī, Abī 'Abd Allāh Muḥammad Ibn Ismā'il al-Bukhārī al-Ju'fī, Ṣaḥīḥ al-Bukhārī, no. hadis 6345, 1103.

the difference that happens and provide solutions to problems by deciding which gives the best effect to self and the environment.²³

In Islamic perspective, a therapist should also explain to the patients that every problem that occurs should have a solution. This is revealed by Allah SWT throuh His word in which those who believe in Him will have guidance and find solution to the problems they face. According to Tafsir Ibn Kathīr, the solution means to save or free someone from the problems in the world and the hereafter.

Said Allah SWT in the Qur'an:

Translation: Then, when they (almost) come to the end of *iddah*, then you may hold them (getting back from divorce) in a good way, or release them in a good way; and prepare two just witnesses among you (when you get back from divorce or releasing her); and shall you (the witness) complete the witnessing processing because of Allah alone. With the rules, reminder and lesson are given to those who believe in Allah and the judgment day; and those who believe in Allah (by committing His commandments and leaving those that He forbids), Allah will provide for him a way out (solution to his problems).

EXPLANATION OF PSYCHOLOGICAL CRISIS OR DEPRESSION ACCORDING TO AL-QUR'AN

According to Islamic perspective, the concept of stress or depression is the nature in human life. Stress is able to give positive and negative impact depending on how one controls, manages and handles the emotional pressure. The greater the stress or pressure faced, the greater the value of reward from Allah SWT. Faith is also increased and reduced with the pressure that comes and goes. As His word in Surah al-Baqarah, verse 155:

²³ Yusmini Md. Yusoff, "Kepentingan Kaunseling dalam Menangani Masalah Rumahtangga," *Jurnal Usuluddin*, vol. 18 (2003), 137-148.

Translation: "Indeed! We will test you with a bit of fear (to the enemy) and (with experiencing) hunger, and (with the occurrence of) lack of property and soul as well as crops and convey good news to those who are patient".

He also said in Surah al-Bagarah, verse 214:

Translation: "Do you think that you would enter Heaven, but have yet to reach you (tests and trials) as had happened to those before you? They have been overtaken by poverty (destruction of property) and diseases, as well as shaken (by threat of enemies), so said the Messenger and those who believe that were with him: When (comes) His assistance? 'Know truly, Allah's help is nearby (as long as you are patient and hold on to the religion of Allah)."

The Qur'an verses above show that Allah reminds men that life endured by His servants will face trials and tribulation as bestowed upon generations earlier. The tests will put pressure and stress to human beings. If one is able to withstand the test well, then it will bring victory to them. On the other hand, if not managed well, it may lead to emotional illnesses. Emotional illnesses involves the soul function in the human body. Islam also considers the physical health of human is dependent and is influenced by the health of the soul. Ahmad Taha stated, soul illness is the result of satan's domination onto the dirty and sick human soul. This stems from the weakness in religion and the tenuous relationship with Allah SWT.²⁴ The following are emotional illnesses or circumstances of human soul that leads to stress as mentioned in the Qur'an:

1) Anxiety/Agitation

Anxiety refers to emotional reaction which is normally experienced by an individual when he felt threatened.²⁵ In fact, anxiety will be treated as emotional disorder and illness if the emotional reactions come without reasonable causes. John Altrocchi in his book the Abnormal Behavior defines such anxiety as:

²⁴ Hairunnaja Najmuddin, *Psikologi Ketenangan Hati: Panduan Merawat Jiwa Yang Selalu Gundah dan Gelisah* (Kuala Lumpur: PTS Publication & Distributor Sdn Bhd, 2002), 112-113.

²⁵ Ramli Hassan, Pengantar Psikiatri (Kuala Lumpur: Dewan Bahasa dan Pustaka, 1990), 11.

"Feelings (unpleasant) experienced by a person when lack of threat from outside that can be ascertained and (feeling) which is a reaction against unrealistic psychiatric ideas." ²⁶

Meanwhile the Qur'an explains about anxiety in several surahs in the Qur'an by using different words. Among them are *al-hulu*, where most members of the tafsir defines it as the nature of anxiety or agitation when someone faces problem, and one is very stingy when getting benefits as His word in the Qur'an:

Translation: "Behold the man is made restless (and stingy)."

According to Wahbah Al-Zuhayli, *al-hulu*' characteristic that human possesses exist when humanity is complete. It is not the nature of human and is not in the human creation itself.²⁷ This is because there are some individuals who are independent of that nature, who is a believer who abandons bad habits or *mazmumah*. *Al-hulu*' is also defined as a very greedy nature, impatient and anxious.²⁸ There is a history of *al-hulu*` attributed to Ibn `Abbas RA where he describes the meaning as mentioned by Allah SWT,

Translation 'When hardship afflicts him, he is very anxious. And when it is pleasing to him, he is very stingy."

It is clear that from the above-mentioned interpretations, al-hulu' is summarized as the nature and character of a human being associated with emotion. Al-hulu' is anxieties when it comes to misfortune or pleasure. Human anxiety is also mentioned in other word which is $ya'\bar{u}s$ as can be found in surah Hud, verses 9 to 10:

²⁶ Altrocchi John, Abnormal Behavior (Harcourt: Brace Jovanovichlm.Inc. 1980), 41.

²⁷ Wahbah al-Zuḥaylī, *al-Tafsīr al-Munīr fī al-'Aqīdah wa al-Sharī'ah wa al-Manhaj*, vol. 29 (Beirut: Dār al-Fikr al-Mu'āsir, 1991), 120. Lihat juga Ahmad Hisham Azizan & Che Zarrina Sa'ari, "Terapi Solat dalam Menangani Penyakit Gelisah (Anxiety) Menurut Perspektif Psikoterapi Islam," *Jurnal Usuluddin*, vol. 29 (2009), 1-43.

²⁸ Hairunnaja Najmuddin, *Psikologi ketenangan hati*, Edisi Kedua (Kuala Lumpur: PTS Millennia, 2003), 133.

²⁹ Hairunnaja Najmuddin, *Psikologi Ketenangan Hati: Panduan Merawat Jiwa Yang Selalu Gundah dan Gelisah* (Kuala Lumpur: PTS Publication & Distributor Sdn Bhd., 2002), 116-119.

(Surah al-Hūd, 11: 9 & 10)

Translation: "And verily! If We bestow humanity a gift of grace, then We take it back from him, he will be very desperate, and very ungrateful. And verily! If We gave him pleasure after he suffered, he would certainly say 'It has been vanished from me all the trouble that befalls me'. Indeed, he (with that pleasure) is cheerful, boastful (to the crowd)."

The condition of *al-hulu'* soul is a condition that encourages a person to show weakness and lamentation. This nature is created by Allah SWT over normal humans. However, a human is still able to put an effort to avoid or eliminate that characteristic. In the situation of facing the difficulty, one would normally feel anxious about death that would happen. This feeling is common and the way to overcome extreme fear against death is to believe that death is certain and to multiply the preparation to death.

2) Haste

Hasty nature is indeed a trait in the habit and structure of human creation.³⁰

Translation: "Man is made (in habit) to haste in all things; I (Allah) will show you My signs of authority; then do not ask to be hastened (the arrival)."

The above verse explains the nature of man (the non-believer) who urges to hasten the affair (torment) to them eventhough it is a danger or pain to them. This will surely happen to every individual, except for those who have good relationship with Allah SWT. When a person has a good relationship with his Creator, then they will feel calm, secure and submit their affairs to Allah SWT without haste or urgency.

In fact, it is also mentioned in the Qur'an that their lives are also in a haste, which is in Surah Al-Isra' verse 11:

³⁰ Asy-Syahid Sayyid Qutb, *Tafsir Fi Zilalil Qur'an: Di Bawah Bayangan Al-Qur'an*, Terj. Yusoff Zaky Hj Yacob (Kelantan: Pustaka Aman Press Sdn Bhd. 2000), 47.

Translation: "And man is praying with (begging to befallen by) evil as he prayed by pleading for good, and indeed the man (has the habit of being) hasty".

Humans who are not guided by the Qur'an will become victims of their own desires which is those who are hasty and ignorant. This is because sometimes they commit something in a haste while the actions taken bring harm to them. There are also people who know about the harms of their actions, but they are not able to withstand their desires and lust.³¹ Raghib Isfahani also states that the source of haste is lust and regard it as a proposition for the prohibition in the Qur'an.³²

The haste to get cured from the illness suffered is common in patients, and they always ask about the hope to cure from the disease.

3) Weak

Human is created weak. If there is no love and mercy from Allah SWT, then every human cannot do anything. There is a lot of evidence showing the weak nature of human being in the Qur'an, such as:

Translation: "And Allah has created you (from nothing); then He completes your lifetime; (and some of you who are hastened his death), and some of you He returned to the weak age (old age), so that he did not remember what he had known; Verily! Allah is Knower, Most Powerful".

This verse shows a reminder to human that the ultimate essence, perfect knowledge, and eternal nature belongs only to Allah SWT. In fact, His power will not end in any period unlike humans who have strength of juz'i character which is limited. The same issue is also mentioned in Surah ar-Rum verse 54:

³¹ Asy-Syahid Sayyid Qutb, *Tafsir Fi Zilalil Qur'an: Di Bawah Bayangan Al-Qur'an*, Terj. Yusoff Zaky Hj Yacob (Kelantan, Malaysia: Pustaka Aman Press Sdn Bhd.2000), 165.

³² Husain Muhammad Raghib Ishafani, A*l-Mufradât fī Gharib al-Qur'ân* (Beirut: Dar al-Syamiyyah, 1992), 548.

Translation: "Allah created you beginning with weakness, after the weakness, He made you strong, and then He made you weak and gray-haired. He creates what He will, and He is the All-Knower, the Almighty".

In addition, other evidence which illustrates the weakness of human beings is the verse explaining the blessings of Allah SWT on human weaknesses in the laws and regulations that are prescribed to them.³³ The simple rules and the ease of Allah's law are aimed at avoiding difficulties, hardships and harm to humans. This is explained in Surah an-Nisa 'verse 28:

(Surah al-Nisā', 4: 28)

Translation: "Allah (always) wishes to lighten (the burden of His law) from you, for mankind are made weak".

Among other verses that mention the weakness of men is by the parable of flies creation as depicted in Surah Al-Hajj, verse 73:

Translation: "O mankind, here is a comparison, then listen to it earnestly. Nay, those whom you call upon besides Him, cannot invent even a fly eventhough they gather together to make it; and if the fly takes something from them, they cannot take it back from it. (Both are weak), weak to ask (from getting their wish), and weakly requested (from fulfilling it)".

4) Worry/Fear

Worry is a negative feeling that combines fear, horror, anxiety, concern, uneasiness, agitation and many other emotions felt by human. Worry is a negative feeling that combines fear, horror, anxiety, concern, uneasiness, agitation and many other emotions felt by human. Al-Ghazālī describes the cause of worry or fear among human is fear of the punishment of Allah SWT, fear of death, fear of body injury, fear of poverty, fear of competition pursuing wealth and rank, fear of losing rank and possessions, fear of differences between himself and others.

³³ Asy-Syahid Sayyid Qutb, *Tafsir Fi Zilalil Qur'an: Di Bawah Bayangan Al-Qur'an*, Terj. Yusoff Zaky Hj Yacob (Kelantan, Malaysia: Pustaka Aman Press Sdn Bhd., 2000), 287.

³⁴ Salasiah Hanin Hamjah, "Kaedah Mengatasi Kebimbangan dalam Kaunseling: Analisis dari Perspektif Al-Ghazali," *Jurnal Hadhari UKM* (2010), 41-57.

This statement clearly illustrates that worry according to al-Ghazālī's may sometimes bring good effect and if overexposed and is uncontrollable can be harmful. For example, worry about Allah's punishment and death can bring about goodness as it encourages a person to keep himself from evil and to improve deeds of welfare. Whereas the fear of losing rank and wealth in the world can bring harm to someone for the sake of pursuing rank and wealth and forget about his responsibility as a servant of Allah on earth. 35

Nonetheless the worst condition about this spiritual illness is when there is a sense of uncertainty and lack of confidence in a human towards the absolute power of Allah SWT. The easiest word is not to trust the fate set by Allah SWT. Issue of dependence to Allah is often mentioned in the Qur'an, including in surah 'Ali-`Imran verse 122:

Translation: "(And remember) when two parties from you (on the day of Uhud war) are in despair (to continue the fight) due to fear, but Allah is the Guardian and Protector. And (if so) to Allah only those who believe put their trust".

Tawakkal (dependency towards Allah) means surrendering to Allah SWT. However, human weakness has caused them to always put their dependence on something else. If he is sure of the absolute power of Allah SWT, then he will be satisfied with whatever He has determined. If not, then anxiety will arise.

5) Arrogance/Egoism

The sin and first mistake made by the creatures of Allah SWT towards Him was arrogance. But it does not originate from the nature of men, but from the nature of the other creature of Allah called the satan. Arrogance emerges from the events of the devil's reluctance to obey the commands of Allah SWT, namely prostration to Prophet Adam AS, who was the first man He created. This is because the devil feels himself more powerful and special because it was created from fire while humans were only created from soil. The event of satan's arrogance is told in the Qur'an through His words in surah al-Baqarah verse 34:

³⁵ Salasiah Hanin Hamjah, "Kaedah Mengatasi Kebimbangan dalam Kaunseling: Analisis dari Perspektif Al-Ghazali," 45.

³⁶ Imaduddin Abdulrahim, *Dahsyatnya Kuliah Tauhid: Memahami dan Menghancurkan Virus-Virus Syirik, Ria', Egoisme, Zhalim, Dengki (*Jakarta: Pustaka Cordova, 2015), 47-49.

Translation: "And (remember) when We said to the angels "Bow down (offer respect) to Prophet Adam". Then they bowed in obedience but satan; he was reluctant and proud, and he became a disbeliever".

The above event became the birth factor of the devil's promise to seduce and mislead humans. Therefore, it is not surprising that the illness can spread to humans. There are many ways used by the devil to cast this arrogance into human soul. The things that are usually a matter of arrogance for human are through seven things: knowledge, practice and worship, descent, beauty and advantage, physical form, wealth and power or influence.³⁷

Arrogance is a *mazmūmah* (bad) characteristics which is direly hated by Allah SWT. There are many reminders on arrogance mentioned in the Qur'an. Amongst them are in surah Luqman verse 18:

Translation: "And do not turn your face away (because looking down) upon human, and do not walk the earth in arrogance, in fact Allah does not like every one who is arrogant and proud".

He said in surah Al-Isra' verse 37:

Translation: "And do not walk on earth with pride, because you will not be able to penetrate the earth, and you will not be as high as the mountains".

The meaning of equating humans to mountains is that men will not be able to achieve such measure because humans are humble servant with limited ability. While something limited is weak. So for the weak and the limited; it is not right for him to be arrogant.³⁸ Another verse that becomes loud rebuke, ridicule and austerity for those who are arrogant is in surah as-Sajdah verse 15:

³⁷ Imam Al-Ghazali, Mutiara Ihya' Ulumuddin (Bandung: Mizan, 1997), 293.

³⁸ Syaikh Imam Al-Qurtubi, Tafsir Al-Qurtubi (Jakarta: Pustaka Azzam, 2008), 647.

Translation: "Verily, those who believe in Our Signs are but those who, when they are reminded and instructed in the verses, they fall down prostrating (to show adherence) and praise their Lord and they are not arrogant".

Universally, arrogance is a psychiatric illness that is manifested from too high selfesteem and it also has its stages in which the worst arrogance is against Allah SWT and can bring mankind to accept His severe punishment. This is mentioned in Surah az-Zumar verse 60:

Translation: "And on the Day of Resurrection, you will see those who lie against Allah (and who express sadness), their faces are jet black. Is it (known that) in the deepest hell provided shelter for those who are arrogant?"

Arrogance can occur when the patient is in no condition to accept the test of pain he experiences. Being disappointed and refusing to surrender to Allah by praying and repenting.

IslamIC PsyCHotHerapy APPRAOCH BASED ON Al-Qur'an anD al-Sunnah

The guidance of the Qur'an encompasses all matters not only related to the policy of faith, but it encompasses from the smallest to the greatest of matter. In the teachings of Qur'an, removing obstacles or stones in the middle of the road is also included in faith as it has helped to eliminate harm to the public. Similarly, governmental and administrative affairs of a country to form a prosperous society.

Along the way, the Qur'an becomes a guidance or enlightenment to men. Hence, Islamic medication is one of the branches of guidance that is awarded by Allah SWT through the Qur'an. In addition, the doctrine of high spiritual values is based on or derived from Allah SWT, which are the Qur'an and also the Sunnah of the Prophet. The Qur'an is revealed to humankind as guidance, teaching and enlightenment in educating people towards the truth so that they can achieve happiness in the world and in the hereafter with the main reason of their creation on earth. This is confirmed in the verses of the Qur'an, among them is in surah Al-Isra' verse 9:

"Verily this Qur'an guides to the right path (Islam) and gives good news to those who believe with deeds of righteousness, that they have a great reward."

He said in surah Al-Fussilat, verse 44;

Translation: "And if We had made the Qur'an in a foreign language, they would certainly have said: Why are not His verses clear (in our language)? Should the Book be alien while the Messenger who brought him is an Arab?" Say (O Muhammad) "The Quran becomes (light) guidance and remedy for the believers; and instead the unbelievers (the Qur'an) became as a disease that clogged their ears (not a remedy); and it is also a darkness which befall them (sight) (not an illuminating light). They are - (by the act of escaping the teachings of the Qur'an, is no different like) the people who were called from far away (how can they hear it properly or see it clearly)..."

Apart from that, surah al-Jathiyah verse 20;

Translation: "the Qur'an becomes guide that opens the eyes of the human heart, and become guidance and bring mercy to those who believe (its truth)".

The Qur'an is also a cure, remedy or treatment of physical and spiritual illnesses as stated in the Qur'an through Surah Yunus, verse 57 which reads;

Translation: "O mankind! Verily has come to you the Qur'an which is an admonition from your Lord, and which is a cure for the inner diseases which are in your chest, and also becomes a guidance for salvation, and bring blessings to those who believes".

Apart from that, the Qur'an and as-Sunnah are also instructions for humans in dealing with whatever problems or living conditions in the world and guidance for obtaining pleasure in the hereafter. There is nothing better to be made a guidance than these two sources, especially in regard to human life and also understanding their characteristics. Human traits

derive from the verses of the Qur'an and hadith where it use the Islamic method based on the nagli proposition, that is revelation and agli proposition, that is mind and reason.³⁹

In the science of Islamic psychotherapy, spiritual value is the main aspect in solving human psychological problems because it is closely related to the problem of the soul and more strongly influences human life. Although humans consist of two components, namely physical and spiritual components, but the spiritual aspect is more important to give an impression of the individual because the heart is likened to a king and the human body is submissive to the heart. The heart is also the main driver of action and physical action known as behaviour. In line with hadith by Rasulullah SAW;

Translation: "Indeed in every person there is a piece of flesh, when it is good, then the whole body is good; and when it is evil, then the whole body is evil. Know that this is what is called the heart." ⁴⁰

The main reference of Islamic psychotherapy apart from the Qur'an and as-Sunnah, it also referred to the experience of as-Salaf al-ṣāleh which consists of as-Salaf and al-Khalaf (As-Salaf consists of scholars of the first three periods, companions of Rasulullah SAW, tabi'in and tabi' tabi'in, meanwhile al-Khalaf are clerics who lived after the first three centuries of hijrah). Their practice is used as reference based on knowledge, sincerity and strength of memory that is rarely found today.

This can be referred to the hadith of Rasulullah SAW which mentions the best three centuries. Said Rasulullah SAW:

Translation: "I leave you two things, you will not go astray as long as you hold fast to both, the book of Allah the Qur'an and the Sunnah of His Prophet." ⁴¹

Said Prophet (PBUH) narrated by `Imran bin Husayn r.a which means:

³⁹ Yatimah Sarmani & Mohd Tajudin Ninggal, *Teori Kaunseling Al-Ghazali* (Batu Caves: PTS Publication & Distributors Sdn. Bhd., 2008), 69.

⁴⁰ Al-Bukhārī, Abī 'Abd Allāh Muḥammad Ibn Ismā'il al-Bukhārī al-Ju'fī, Şaḥīḥ al-Bukhārī, 12, no. hadis 52.

⁴¹ Al-Ḥakim al-Nisaburī, al-Mustadrak 'ala al-Ṣaḥīḥayn li Abī 'Abd Allāh Muḥammad Ibn 'Abd Allāh al-Ḥakim al-Nisaburī (Beirut: Dār al- Ma'rifah, 2006), no. hadis 323, 284.

"The best of my people is this century (the time of the Prophet), then the people afterwards (the age of the companions) and then the times afterwards (the age of tabi`in)."⁴²

This is further reinforced by the hadith of the Prophet (PBUH) who told Muslims to hold on to the Sunnah and his Companions. Said Prophet (PBUH) narrated by Al-'Irbad bin Sariyah which means:

Translation: "hence hold on to my sunnah and sunnah of the Khulafa' ar-Rasyidin al-Mahdiyyin. Hold on to it like a grip on your molar."⁴³

CONCLUSION

All human psychological and spiritual illnesses are norms, but how a person is dealing with these matters is the question. Al-Qur'an has outlined recommendations for dealing with the matter. As human being, one must try to find solution and always hope upon Allah to be given strength and healing.

BIBLIOGRAFI

- Ab. Aziz Mohd Zin & Yusmini Md. Yusoff, "Asas-asas Teknik Kaunseling Dakwah," *Jurnal Usuluddin*, vol. 14 (2001), 165-176.
- Ab. Aziz Mohd Zin & Yusmini Md. Yusoff, "Kaunseling Dakwah Satu Pengenalan Konsep," *Jurnal Usuluddin*, vol. 13 (2001), 143.
- Abdul Mujib & Jusuf Mudzakir, *Nuansa-nuansa Psikologi Islam* (Jakarta: Raja Grafindo Persada, 2001), 164.
- Abū 'Abd Allāh Muḥammad Ibn Yazid al-Qazwinī, Sunan Ibn Mājah (Kaherah: Dār
- Ahmad Hisham Azizan & Che Zarrina Sa'ari, "Terapi Solat dalam Menangani Penyakit Gelisah (Anxiety) Menurut Perspektif Psikoterapi Islam," *Jurnal Usuluddin*, vol. 29 (2009).
- Ihyā' al-Kutub al-'Arabiyah, 1952), 15, no. hadis 0042.
- Al-Bukhārī, Abī 'Abd Allāh Muḥammad Ibn Ismā'il al-Bukhārī al-Ju'fī, Ṣaḥīḥ al-Bukhārī, no. hadis 6345, 1103.

⁴² Al-Bukhārī, Abī 'Abd Allāh Muḥammad Ibn Ismā'il al-Bukhārī al-Ju'fī, Ṣaḥīḥ al-Bukhārī, 429, no. hadis 2651.

⁴³ Abū 'Abd Allāh Muḥammad Ibn Yazid al-Qazwinī, *Sunan Ibn Mājah* (Kaherah: Dār Ihyā' al-Kutub al-'Arabiyah, 1952), 15, no. hadis 0042.

- Al-Bukhārī, Abī 'Abd Allāh Muḥammad Ibn Ismā'il al-Bukhārī al-Ju'fī, Ṣaḥīḥ al-Bukhārī, 12, no. hadis 52.
- Al-Bukhārī, Abī 'Abd Allāh Muḥammad Ibn Ismā'il al-Bukhārī al-Ju'fī, Ṣaḥīḥ al-Bukhārī, 429, no. hadis 2651.
- Al-Ḥakim al-Nisaburī, al-Mustadrak 'ala al-Ṣaḥīḥayn li Abī 'Abd Allāh Muḥammad Ibn 'Abd Allāh al-Ḥakim al-Nisaburī (Beirut: Dār al- Ma'rifah, 2006), no. hadis 323, 284.
- Altrocchi John, Abnormal Behavior (Harcourt: Brace Jovanovichlm.Inc. 1980), 41.
- AM. Diponegoro, *Psikologi Islam*, 14. http://eprints.uad.ac.id/5145/1/PSIKOLOGI%20ISLAM.pdf.
- Arifin Isep Zaenal, Bimbingan Penyuluhan Islam Pengembangan Dakwah Melalui Psikoterapi Islam (Jakarta: Rajawali Pers., 2009), 240-244.
- Asy-Syahid Sayyid Qutb, *Tafsir Fi Zilalil Qur'an: Di Bawah Bayangan Al-Qur'an*, Terj. Yusoff Zaky Hj Yacob (Kelantan, Malaysia: Pustaka Aman Press Sdn Bhd.2000).
- Barbara Depreeuw, Sharon Eldar, Kristina Conroy & Stefan G. Hofmann, "Psychotherapy Approaches," *International Perspectives on Psychotherapy* (2017).
- Darojat Ariyanto, "Psikoterapi dengan Doa", *Jurnal Suhuf Fakultas Agama Islam Universitas Muhammadiyah Surakarta. Indonesia*, vol. 18, no. 1 (2006), 3-26.
- Fuad Anshori, Agenda Psikologi Islami (Yogyakarta, Indonesia: Pustaka Pelajar, 2002).
- Hairunnaja Najmuddin, *Psikologi ketenangan hati*, Edisi Kedua (Kuala Lumpur: PTS Millennia, 2003).
- Hairunnaja Najmuddin, *Psikologi Ketenangan Hati: Panduan Merawat Jiwa Yang Selalu Gundah dan Gelisah* (Kuala Lumpur: PTS Publication & Distributor Sdn Bhd, 2002).
- Harun Nasution, Islam Rasional (Bandung: Mizan, 1997).
- Husain Muhammad Raghib Ishafani, A*l-Mufradât fī Gharib al-Qur'ân* (Beirut: Dar al-Syamiyyah, 1992), 548.
- Iin Tri Rahayu, *Psikoterapi Perspektif Islam dan Psikologi Kontemporer* (Malang: UIN Press Malang, 2009).
- Imaduddin Abdulrahim, *Dahsyatnya Kuliah Tauhid: Memahami dan Menghancurkan Virus-Virus Syirik, Ria', Egoisme, Zhalim, Dengki (*Jakarta: Pustaka Cordova, 2015).
- Imam Al-Ghazali, *Mutiara Ihya' Ulumuddin* (Bandung: Mizan, 1997).
- Imam Fakhr al-Din Muhammad Ibn `Umar al-Razi, *Tafsir Al-Fakhr al-Razi Al-Mushtahar bi al-Tafsir al-Kabir Wa Mafatih Al-Gha'ib (*Beirut: Dar al-Fikr, 1995).
- Khairunnas Rajab, "Nilai-Nilai Holistik dalam Kaunseling Islam," *Afkar*, vol. 17 (2015).
- Muhammad `Uthman Najati, Al-Quran wa 'Ilm al-Nafs (Kaherah: Dar al-Shuruq. 2001).

- Muhammad Sakura, *Psikoterapi Islami Untuk Kesehatan Mental & Spiritual* (t.t.p.: Xenosakura Dragon SPC, 2016).
- Muhsin al-Fa'id al-Kashani, *Al-Shafi fī Tafsir Kalam Allah* (Mashhad: Dar al-Murtada li al-Nasr, 1091).
- Nurul Fitriani, "Implementasi Psikoterapi Islam dalam Mengatasi Problematika Psikologis Mahasiswa STAIN Salatiga: Studi di Biro Konsultasi Psikologi Tazkia STAIN Salatiga Tahun 2011," (Disertasi Sarjana Pendidikan Islam, Indonesia, Salatiga, 2011).
- Nurul Fitriani, "Implementasi Psikoterapi Islam dalam Mengatasi Problematika Psikologis Mahasiswa STAIN Salatiga: Studi di Biro Konsultasi Psikologi Tazkia STAIN Salatiga Tahun 2011.
- Ramli Hassan, Pengantar Psikiatri (Kuala Lumpur: Dewan Bahasa dan Pustaka, 1990).
- Salasiah Hanin Hamjah & Noor Shakirah Mat Akhir, "Islamic Approach in Counseling," *J Relig Health*, vol. 53 (2014).
- Salasiah Hanin Hamjah, "Kaedah Mengatasi Kebimbangan dalam Kaunseling: Analisis dari Perspektif Al-Ghazali," *Jurnal Hadhari UKM* (2010).
- Singgih D. Gunarsa, *Konseling dan Psikoterapi*, 155-156. Lihat juga Leslie S. Greenberg & Antonio Pascual-Leone, "Emotion in Psychotherapy: A Practice-Friendly Research Review," *Journal of Clinical Psychology*, May (2006), 612.
- Syaikh Imam Al-Qurtubi, *Tafsir Al-Qurtubi* (Jakarta: Pustaka Azzam, 2008).
- Wahbah al-Zuḥaylī, *al-Tafsīr al-Munīr fī al-'Aqīdah wa al-Sharī'ah wa al-Manhaj*, vol. 29 (Beirut: Dār al-Fikr al-Mu'āsir, 1991).
- Yatimah Sarmani & Mohd Tajudin Ninggal, *Teori Kaunseling Al-Ghazali* (Batu Caves: PTS Publication & Distributors Sdn. Bhd., 2008).
- Yusmini Md. Yusoff, "Kepentingan Kaunseling dalam Menangani Masalah Rumahtangga," *Jurnal Usuluddin*, vol. 18 (2003).

Developing Skills Creating Digital ePub on Tablet PC for STEM Teachers and Staff in Educational Service Area of Phitsanulok Province

Passakorn Rueangroun

Naresuan University, Thailand

Abstract

The purposes of this study were to the compare learning achievement of the STEM teachers and staff in Educational after Developing skills Creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province, and to evaluate the level of opinion after Developing skills Creating Digital ePub. The 120 STEM teachers and staff in Educational were chosen from Service Area of Phitsanulok province Thailand. The research tools employed in the experiments included the Digital ePub skills training documents, lesson plan, Test for pretest, summative test, posttest and questionnaires for trainee's opinion forward that developing skills creating digital ePub on Tablet PC. Data were statistically analyzed by using percentages, means, standard deviations and t-test. The results of this research indicated that the learning achievement was also higher than those before learning at the statistically significant level of .05. and it was found that the trainee' opinions after Developing skills Creating Digital ePub on Tablet PC was at a "good" level

Keywords: ePub, Tablet PC, Developing skills.

1. Research Project: Developing skills of Creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province.

2. Introduction

Chan-ocha (2016), Ratanasuwan (2016), and Jareonsettasin (2016) mentioned about Thailand 4.0 that Thailand was stepping into the Thailand 4.0 from the Thailand 1.0 era, starting with planting and farmers. In the Thailand 2.0 era, it was continued with the light industry, and then the Thailand 3.0 era focusing on the heavy industry. Currently, it has been entering into the Thailand 4.0 era that focuses on high-benefit operations, less worker using, having workers with high skill and knowledge. However, highly skilled workers need to have basic skills of the 21st century, especially in information, media and technology skills. They must be able to analyze media by understanding how to use and how to produce media to meet the assigned goals, able to use media to respond to differences between people, and able

to produce creative media products with knowledge and understanding in using media creatively and appropriately according to the characteristics of the media and in using media effectively.

Digital ePub media is considered to be a type of eBook that can be used on a Tablet PC and can be used on a PC computer. The digital ePub media is developed based on the html5 basic language. However, the digital ePub media allows the beginning user or general teacher who does not have many computer skills to easily create an the digital ePub by using data or lessons created from the MS Word program and convert them to be the digital ePub by using simple, convenient and fast data conversion program (Ruengrong, 2014).

Ruengrong (2014) mentioned that the digital ePub media can be used well on Tablet PCs. Learners can review the knowledge learned in class and repeat it when having opportunities according to the differences of learners who are ready to learn, have the ability to remember and have different interests. This results in learners to have different teaching and learning achievement, in helping solving problems, in lacking of experts which, in teaching both inside and outside the classroom, teachers have different skills in teaching content. This is the use of technology presenting information on the computer screen to be useful. The facts that we allow learners to study from books, documents, and textbooks that are paper are that the paper restricts images and colors as needed. It also cannot create dimensions and sound illustrations, display content on one sheet, scroll the content on the paper, have interaction between books and learners. However the computer screen can meet all of the above requirements. It is a combination of learning activities both inside and outside the classroom. The e-Book media that the teachers have created and required learners to study from can be also brought with them to out of the classes to study in real situations such as the garden. Learners are able to open the e-Book and may use the tools to read bar codes on the tree to open the content from the center network immediately. The e-Book links time, events and places together while the book cannot. The e-Book is a link for time in the past and the future with events and places. The teacher can create an e-Book with a link to connect the content in the past such as the Second World War event and to connect the events in the future predicted from statistics and making it as a media such as the weather forecast. And the teacher can create an e-Book with a link to connect locations such as geography teaching. The teachers can connect the place that needs to be taught without having to go out to the real place.

The Tablet PC is an electronic device with an operating system that manages internal and external devices to work together effectively and be able to install applications for

various tasks according to the objectives of the program. Ruengrong (2014) discussed the advantages of the Tablet PC that the Tablet PC is small, easy to carry around, available in many sizes from a small size called a 340x480 smartphone and a larger size called a Tablet PC with sizes ranging from 7 inches, 8 inches, 8.9 inches, 10 inches to 11 inches. It can connect with the wireless system including Wi-Fi, the cellular system, 3G, and 4G and can connect external devices such as SD Memory, Display Adapter, USB disk drive, headphones and others. At present, Tablet PC is affordable and are manufactured by independent companies (China and other countries). The Tablet PCs are available in a variety of models and brands. It has a quality operating system. Currently, the most popular operating system is both Android and IOS operating systems. Both of them are powerful. In new models, there is an energy saving, so batteries can be used for hours (in normal use). And the Tablet PC does not require a keyboard which is very convenient (Ruengrong, 2013).

The management of education in form of the STEM education is a way to manage education for learners to study and integrate scientific knowledge, technology knowledge, engineering processes, and mathematics to be used to link and solve problems in real life and develop new processes or products coupled with the development of 21st century skills,

The management of education in form of the STEM education is studying through activities or projects that integrate science, mathematics, technology and engineering design. The learners will have activities to develop knowledge and understanding of skills of science, mathematics and technology and to bring knowledge to design work pieces or methods to meet needs or solve problems related to daily life to get technology which is a product from the engineering design process. The main characteristics of the study include five aspects: (1) allowing learners to integrate knowledge and the skills of relevant subjects in the STEM education during studying (2) challenging learners to solve problems or situations that the teachers determines (3) having activity to active learning (4) helping learners develop skills of the 21st century through activities or the situations that the teachers assigns and (5) the situations or problems used in the activity is linked to the daily life of the learners or their future occupation (STEM Education Thailand, 2016).

Teachers and personnel are considered to be important workers. They are the organizer of STEM education activities that will be a mechanism to drive and push learners' experiences and skills to respond to learning in the 21st century as well as Thailand 4.0. Therefore, teachers and STEM education personnel need to have 21st century learning skills, especially in information, media and technology skills.

In the initial information survey of the researcher conducted a survey of the needs of skills and media creation of teachers and STEM personnel in Phitsanulok educational area, it was found that most teachers and STEM personnel have the desire to create simple media that can be used on Tablet PCs that are interesting and popular for learners and teachers both inside and outside educational institutions. In addition, it was also found that teachers and STEM personnel lack the skills to design and create such media.

The Office of the National Research Council of Thailand (NRCT) recognizes about the development of research personnel, especially the development of teachers and STEM personnel. Therefore, the NRCT supports research budget to develop STEM personnel and increase the capability of advanced science and technology personnel as needed in the strategic field of Thailand.

In order to comply with the research project for research personnel development, especially the development of teachers and STEM personnel, the NRCT therefore supports research budget to develop STEM personnel and increase the capability of advanced science and technology personnel and learning skills of the 21st century as well as Thailand 4.0, and would like to propose the research project to develop the media creating skill of the Digital ePub media on the Tablet PC for teachers and STEM personnel in Phitsanulok educational area.

3. Objectives

- 1. To study the achievement after training on creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province
- 2. To evaluate the satisfaction after training on creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province

4. Target/Output

STEM teacher and staff and other interested people with 180 people in total in educational service area of Phitsanulok province

5. Indicators

Quantity

- 1. The 80 percent of STEM teacher and staff participated in this project and had high level of satisfication.
- 2. STEM teacher and staff can apply STEM into learning activity and lesson plan.

Quality

- 1. Teacher can design and apply Digital ePub on the Tablet PC to create learning activity for student.
- 2. STEM teacher and staff can create Digital ePub on the Tablet PC for instruction, which lead to professional academic research level in the future.
- 3. Student can conveniently apply STEM into their study according to their interest and capability by joyfully learning from Digital ePub on the Tablet PC in advance and after class excitedly.

6. Research Methodology

PDCA Model (Wikipedia, 2016) was applied in this research as follows:

Planing (P)

- 1. Surveying situation and problem of using computer instruction media of STEM teacher and staff
- 2. Surveying the basic skill on creating computer instruction media of STEM teacher and staff
- 3. Surveying the readiness of computer tablet PC and computer networking resource.
- 4. Preparing data for research project
- 5. Proposing research project to university and supporting organizations

Doing (D)

- 1. Arraging meeting among school administrators, teachers, and personnel to understand the developing skills of Creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province realizing research objective and how to develop skills, terget group, indicators and advantages after training.
 - 2. Indicating work plan in accordance with working procedure after the meeting.
- 3. Indicating training schedule on developing skills of creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province.
- 4. Preparing learning instruction equipment including classroom, projector, computer, learning materials, ePub Tablet PC program of each school.
 - 5. Proceeding training computer skills according to the specified training schedule (Ruengrong,, 2014) to begin with, analyzing instructional media, specifying learning objective, designing ePub content and ePub screen, creating ePub media by application program, and applying ePub into instruction.

Checking and Evaluation (C)

1. Evaluating learning outcome after training on Creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province as follows: (Khammani, 2011)

<u>Cognitive Domain</u> Intellectual, basic knowlege, analyzing, choosing instruction media, and designing media

<u>Phychomotor Domain</u> Creating and applying Digital ePub media in accordance with STEM education

Affective Domain Applying moral principle into instruction media

2. Evaluating satisfaction after training on Creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province (Dheerakul, 1994).

Speakers

- 1. Ability to pass on knowledge obviously
- 2. Ablity to explain content
- 3. Ablity to connect content systematically
- 4. Ability to pass on context completely
- 5. Ability to manage time effectively
- 6. Ability to respond any inquiries during training

Location/Duration/Catering

- 1. Clean and suitable
- 2. Readiness of audio-visual equipment
- 3. Suitable training duration
- 4. Suitable catering

Intellectual

- 1. The knowledge on Creating Digital ePub on Tablet PC before training
- 2. The knowledge on Creating Digital ePub on Tablet PC after training

Applying knowledge

- 1. Applying obtained knowledge into working procedure
- 2. Applying obtained knowledge confidently
- 3. Passing on obtained knowledge to others

Action (A) During this algorithm, evaluation results were applied to improve research project and STEM teacher and staff satisfaction evaluation was taken after training by using IPO Model (Wikipedia, 2016).

<u>Input factors</u> i.e. Research project, research objective, research budget, training and developing skills, media eqipment and facilities, the target group of STEM teacher and staff

Procedure i.e. Research methodology, training method, and training process

<u>Production</u> The acheivement of STEM teacher and staff who have trained on Creating Digital ePub on Tablet PC, developed and created media of teacher, how to apply Digital ePub into learning activity based on STEM education

<u>Reflextion</u> Proposing research project report to university and support organizations, presenting research project through domestic and international conferences, and accepting any suggestion to improve research project

7. Scope of the study

Hypothesis

- 1. Learning achievement after training on creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province
- 2. The average of satisfaction after training on creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province

Population

STEM teachers and staff in Educational Service Area of Phitsanulok province and the sample group of STEM teachers and staff in Educational Service Area of Phitsanulok province were obtained from the purposive sampling (Suwanwongse, 1995).

- Phitsanulok Education Service Area 1, 3 schools, 15-20 people each for 60 people in total
- Phitsanulok Education Service Area 2, 3 schools, 15-20 people each for 60 people in total
- Phitsanulok Education Service Area 3, 3 schools, 15-20 people each for 60 people in total

Variables

Independent Variables

1. Training on creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province

2. The evaluation of satisfaction for the training on creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province

Dependent Variables

- 1. Learning achievement after training on creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province
- 2. The average of satisfaction after training on creating Digital ePub on Tablet PC for STEM teachers and staff in Educational Service Area of Phitsanulok province

Contents

- Analysis of teaching materials
- Determination of learning objectives
- Content design for ePub
- Screen design for ePub
- ePub media creation by applied program
- Guidelines for applying media to be used in teaching according to STEM education

8. Research period Academic year 2018 to 2019

9. Research results

- 1. STEM teacher and staff and other interested people in educational service area of Phitsanulok province had learning achievement after training on creating Digital ePub on Tablet PC at statistical significance of 0.05 level.
- 2. STEM teacher and staff and other interested people in educational service area of Phitsanulok province had satisfaction after training on creating Digital ePub on Tablet PC at at a high level.

10. Discussions

According to the developing skills of creating digital ePub on Tablet PC training project for STEM teachers and staff in educational service area of Phitsanulok province, the result was significant at .05 because the researcher conducted the project following PDLC model as follows.

Planning (P) was surveying background and problem of STEM teachers and staff in using computer as a teaching material. The researcher surveyed basic skill of creating digital media and checked the availability of Tablet PC resources and computer network systems.

Next, **Doing Stage (D)** was a process of conducting a research project committee meeting, coordinating with the director of educational service area, the director policy and educational planning of Phitsanulok province as well as staff in order to understand the research project of creating digital ePub media. The classroom, projector, computer, teaching material and ePub Tablet PC program were provided. Then, creating digital ePub on Tablet PC course was analyzed respectively from teaching materials analysis, learning objectives set, ePub content design, ePub screen design, ePub media creation using Caliber application and media implementation. The next stage was Checking and Evaluation (C). At this stage, the researcher evaluated learning achievement after training. The assessment covered knowledge, practice and attitude aspects (Khammani, 2011). Cognitive knowledge, memory, understanding, basic knowledge, analysis, media selection and media design were evaluated in knowledge aspect. In practice aspect, the researcher evaluated skills in creating and applying digital ePub media to use in form of STEM education. Moreover, in attitude aspect, the use of teaching materials and social media with morality and ethics were evaluated. The last stage was Action (A). In this stage, achievement and satisfaction result from teachers and STEM staff was overall considered for improvement after training. Besides, suggestions for further research were determined.

2. According to the satisfaction after creating digital ePub on Tablet PC's training project for STEM teachers and staff in educational service area of Phitsanulok province, the result signified high level of satisfaction as the researcher provided teacher assistances determining 3 participants per 1 teacher assistance. The teacher assistances facilitated, explained and solved problem. In addition, the researcher had also been a teacher and had slowly passed on knowledge and explained the content with emphasis on clarification. The researcher would not skip the new content if some participants did not understand but tried to link the content, answered questions and spent time as specified. Moreover, computer, network system and audio-visual equipment were available in the training place.

At present, smart phones are very popular. It can be used as a teaching materiel to study anywhere and anytime which is consistent with the Thailand 4.0 era. The ePub media can be well presented and used on Tablet and smart phone; as a result, the teachers attending the training had high level of interest and satisfaction.

Furthermore, the researcher also surveyed and coordinated with large, medium and small schools by coordinating through the educational service area office. In the small schools, the school directors contributed a great cooperation by closing the school for teachers to attend the training. However, in the large schools, the schools had a lot of

undertakings such as school activities, O-Net examination, contest activities, tutoring activities as well as school assessment; therefore, the large schools were inconvenient to participate.

11. Recommendations

- 1. Training should be provided for middle to small schools.
- 2. The application outcome of Digital ePub media on Tablet PC of teachers and related staff shall be followed up.
- 3. The training area for developing skills of creating Digital ePub on Tablet PC shall be expanded to cover the lower northern region or academic service areas of Naresuan University.
- 4. The content of developing skills of creating Digital ePub on Tablet PC shall be added to promote academic research performance.

12. References

- Ratanasuwan, D. (2016), Thailand with Educational Development. Phramongkutklao College of Medicine. Retrieved from http://www.moe.go.th/websm/2016/aug/340.html, 29 September 2016.
- Khammani, T. (2011). Teaching Science: knowledge for organizing effective learning processes. Bangkok: Chulalongkorn University.
- Jareonsettasin, T. (2016). Thailand 4.0: The education for sustainable development. Government Complex Hotel and Convention Center. Retrieved from http://www.thaigov.go.th/index.php/th/news-ministry/2012-08-15-09-39-20/item/106545, 27 September 2016.
- Chan-ocha, P. (2016). Startup Thailand 2016 under the concept of "Unite to Rise" to drive Thai economy. Queen Sirikit National Convention Center. Retrieved from http://www.admissionpremium.com/news/1377, 27 September 2016.
- Ruengrong, P. (2013). Development of tablet PC-based learning. Bangkok: Pornthicha Printing.
- Ruengrong, P. (2014). The development of an electronic book on tablet PC. Bangkok: Pornthicha Printing.
- Dheerakul, V. (1994). Training (1st ed). Chulalongkorn University Book Center.
- Suwanwongse, S. (1995). Theory and sampling techniques. Bangkok: Odian Store Printing.

- The Institute for the Promotion of Teaching Science and Technology. (2016). STEM Education Management. Retrieved from http://physics.ipst.ac.th/?page_id=2481, 11 November 2016.
- STEM Education Thailand. (2016) Knowing STEM. Retrieved from http://www.stemedthailand.org/, 11 November 2016.
- Wikipedia. (2016). IPO model. Retrieved from https://en.wikipedia.org/wiki/IPO_model, 11 November 2016.
- Wikipedia. (2016). PDCA model. Retrieved from https://en.wikipedia.org/wiki/PDCA, 11 November 2016.

Cryptocurrency: A New Challenge from Digital World

Wiranya Sutthikun, Kongkiat Sahayrak and Sujittra Hongyon
Ubon Ratchatani Rajabhat University, Thailand

Abstract

Cryptocurrencies such as Bitcoin are a popular issue in the financial industry. Bitcoin is particularly disruptive cryptocurrencies looking to leverage blockchain technology to drive innovation across many industries. The purpose of this paper aims to emphasize (1) the challenges that cryptocurrencies must overcome to achieve globally accepted, (2) a comparison basis between the cryptocurrency and the traditional currency, (3) the more fundamental and issues cryptocurrencies must solve and (4) the prospect of cryptocurrency use in the entertainment industry.

Keywords: Cryptocurrency, blockchain technology, bitcoin

1. Emerging of Cryptocurrency

The cryptocurrency market has developed erratically and at unparalleled speed over the course of its short lifespan. Satoshi Nakamoto introduced Bitcoin in 2008 via e-mail to cryptography experts and enthusiast and after first becoming operational in January 2009. Nakamoto initially participated with developers on what has been called a revolutionizing innovation, his participation ended in mid-2010. Since then blockchain is a cryptographically secured database of data record that is allocation by all parties participating in initiated network of computers known as distributed ledger technology (DLT).

This paper will provide detailed information on the introduction of cryptography and cryptocurrency with the primary focus being on bitcoin. The term "cryptography" comes from two Greek, 'Kryptos' which means 'secret' and 'Graphein' which stands for 'Writing' By definition, Dannen, (2017) defines cryptography as the sending of data or information in an encrypted manner and can only be read or decoded by a specific unique algorithm or key that can unlock its content.

The Ledger: The journal of cryptocurrency and blockchain technology research (2016) explains that Blockchain indulges in the distribution of ledgers where every single transaction is not sent to a specific person, but to the entire ledger. When in the public ledger, only the person with the correct encryption can be able to view the content. Because of the use of encryption keys, neither the sender nor the intended receiver is known. Cryptography therefore uses the idea of blockchains functionality in that is hides the information using a digital signature and a hash. The digital signature is used by the sender to sign the ledger to

specify the ownership and the intended receiver. (Dannen, 2017). The hash acts as the holder of the information. It functions by taking a long data and randomly converts it into words, letters and numbers. The information contained in the hash is wallet balance, how the transaction will be executed, and also gives a clue on how the miner will solve, verify and get rewards whenever possible. There are several types of Cryptocurrencies. The common one being bitcoin and Ethereum which have become very popular in the support of peer-to-peer architecture (Reed, 2016). They are decentralized, secure and anonymous and because of this nature, they have made the transferring of funds and other digital assets possible without the intervention of a central authority.

2. Mechanics of bitcoins

Tumber (2015) explains that a bitcoin is a peer-to-peer virtual decentralization of the cryptocurrency. The decentralization nature means that there is no intervening institute such as bank or government to control the transaction. However, there are strict rules which are used for control the transfer of the bitcoins. In the bitcoin systems, there are two types of algorithms known as asymmetric and symmetric algorithms. Asymmetric algorithms functions by generating two keys, one is referred to as a public key and the other one is the private key. The message to be sent is first encrypted by the public key, and only its associated private key can be used to decrypt it. According to White (2018) when in use, the sender can publish their public key to the world but keep their private key to themselves. The use of public and private key is possible because of two key factors; non-repudiation and confidentiality. The non-repudiation concept works when a private key is used to decrypt a message created and encrypted by a public key.

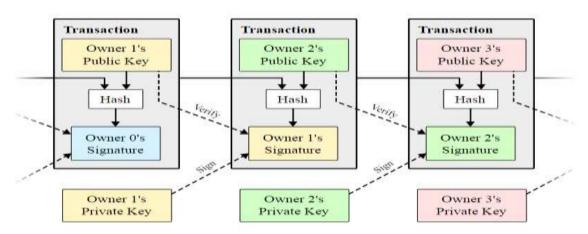


Figure 1: Cryptocurrency transaction procedure

Source: Nakamoto, 2008

Figure 1, for example owner 1's signs a message using his public key. Decrypting the message using his private key will verify that the message indeed was from owner 1's. The confidentiality concept works when a message is sent from one person to another. For instance, when owner 1's wants to send a message to owner 2's, he has to sign the message using owner 2's public key. This is only way owner 2's will be able to decrypt it because he is the only person with the private key (White, 2018). When it comes to money, every user should have some form of identity which is used for validation purposes. In bitcoin transactions, the users usually create many identities, in terms of accounts. It is easier to create numerous accounts because neither proof nor documentation is required. What they actually use are the bitcoin address. The bitcoin address is used to identify a transaction. To receive payment from the buyer all they provide is their bitcoin address to the specified payer. The users keep their main bitcoin account address private and uses the other ones to receive payments. Before a transaction gets into a network, it has to be verified. The verification is done by adhering to the rules specified in the script. The scripts contain digital verification procedures and instructions which are used by a user to verify that they are the owner of the bitcoins and allowed to spend it (White, 2018).

Like every user has inputs and output. The inputs are the bitcoins which they have received previously whereas the output are the bitcoins which they have spent. The difference between the input and the output represent the unspent bitcoins which belong to a particular user. When sending bitcoins, such as when paying for a service, output bitcoins has accompanying instruction. The receiver has to adhere to the instruction and the bitcoins will change ownership once the validation is completed.

Law Library of Congress (U.S.) (2018) states that blocks are the verified transactions in the bitcoin universe. For the blocks to be accepted and appended to the existing blocks, mathematical puzzles or proof of works has to be solved by miners. Miners provide computational resources which enable the solving of the mathematical puzzles. The puzzles have their own set of rules which need to be solved. First of all, a challenge is provided which exist as a nonce, a random value with a length of 4 bytes (Gomzin, 2016).

Figure 2: Hash Chaining

Block Header

Prev Hash Nonce

Merkle Root

Figure 2: Hash Chaining

Block Header

Prev Hash Nonce

Merkle Root

Merkle Root

Source: Nakamoto, 2008

From figure 2, the nonce is appended together with the challenge to provide the hashing algorithm. The challenge require that the Merkle root of the current block is derived by calculation and the Merkle tree is paired with the transaction ID from a block and produces a single hash. A unique hash is eventually created and the current block yields the Merkle root. The first miner to successfully solve the mathematical puzzle is rewarded the bitcoins. In other words, bitcoins are created out of thin air whenever new blocks are generated. Known as Coinbase records, the first transactions which these bitcoins take part is when the miner reword themselves. Another win for the miners is the setting of the transaction fees for every transaction in the current blocks, which is set by either the user or the payer. According to Vandezande et al., (2018). Bitcoin started to exist in January 2009. Then, a single Coinbase was equivalent to 50 bitcoins. The maximum value of bitcoin is set at 21 million. After every four years, the value of the Coinbase is halved, signifying that, based on the number of bitcoins generated every year, the bitcoin generation will be halted between 2100 and 2140, when the 21 million mark is reached. When the maximum value reaches, miners will no longer benefit from the Coinbase records but will be benefiting from the transaction fees.

3. Comparing cryptocurrency and the tradition currency

Online transactions have made cryptocurrency to be accepted currency in the digital world. However, this does not mean that the use traditional currency has been abandoned. Its difference with the traditional currency is what has made it to stand out.

First and foremost. Girasa (2018) describes that the used of cryptocurrency are completely anonymous, whereas with the traditional currency, every transaction has the personal information of the user. In transacting using the cryptocurrency, no personal information is attached to the transaction, unless the user decides to. Because of the anonymity nature of the use of cryptocurrency for purchasing purposes, identity theft is impossible. However, transaction using the traditional currency, say using their debit or credit card, generates personal information which can be tracked by either the governments, businesses and banks. Hackers can therefore use such information for their own agendas (Girasa, 2018).

Another key difference between cryptocurrency and traditional currency is in the accounts which holds the currency. In the traditional currency, the accounts can either be garnished or frozen by the bank, or the government when they have found a reason to do so. However, this is not possible for the cryptocurrency accounts since no one can access a

cryptocurrency accounts unless they have the decryption keys. The committing of fraud is only possible in the traditional currency, but not the case in the cryptocurrency. This is because the traditional currency and be counterfeited and reversed arbitrary by the sender, such as the card charge-backs. However, in the cryptocurrency, counterfeiting is impossible because the keys are required to either send or receive bitcoins.

The fees involved in transaction between the traditional currency and cryptocurrency are significantly different. As for the traditional banks, the processing of the transaction requires the payment of transaction cost, such as the bank charges fees. However, the only transaction fees which is paid for using bitcoins is the transaction fees paid to the miners. The transaction fees are like the taxes we pay in the traditional currency. However, it is easier to evade the traditional taxes than the cryptocurrency charges (Raftery, 2018).

Table 1: Comparison between traditional digital currency transaction and cryptocurrency transactions

	Traditional digital currency	Cryptocurrency (Bitcoin)
	transaction	transaction
Definition	Money in any form in actual use or	Digital currency in which encryption
	circulation as a money for exchange,	techniques are used to regulate the
	especially circulating banknotes and	generation of units of currency. Types
	coins. Money is government-issued	of currency that is non-physical, of
	currencies.	which no banknotes and coins exist,
		and which can only be transmitted via
		electronic means, typically allowing
		for instantaneous transactions and
		borderless transfer of ownership.
Example	Two monetary systems: fiat money	Virtual currencies and
	and commodity money	cryptocurrencies
Verification	The transaction using code from	A transaction using a digital signature
	financial institution	that represented by a code that is
		generated by algorithm.
Transaction	The transaction path is monitored by	Ledgers in blockchain monitor the
path	trusted third part	transaction path. This ledger is open
		for public access and maintain by
		users.

Transaction	There is transaction cost	Minimal transaction cost that lower
cost		compared to traditional money
		transfer method
Volatility	Price of exchange rate fluctuates	Price of bitcoin is based on supply
	according to economic condition.	and demand. The exchange rate of
		cryptocurrency fluctuates widely
		depending on the news.

Source: Nashirah et al, 2017

More people have access to the cryptocurrency than they have access to the traditional currency. This is because, one only needs an access to the internet and a device capable of connecting to the internet. As for the traditional exchange, you need to open a bank account to access the money. Lastly, the other traditional currencies have to centrally be managed, such as the central bank. As for the bitcoins, there is no central authority. Furthermore, every transaction in the cryptocurrency market is listed in the public ledger, whereas not all transactions are recorded for the traditional currencies.

4. Issues of cryptocurrency

Cryptocurrency has several fundamental issues which have prevented it from achieving widespread recognition. When these issues are resolved, the cryptocurrency would become the effective mode of transaction, as compared to the other types of currencies. The most significant issue facing the cryptocurrency market is the excessive volatility.

Table 2 Advantages and disadvantages of Cryptocurrency transactions

Advantages	Disadvantages
Quick transaction process.	Cryptocurrency can be difficult to
	understand since it's a new currency based
	on blockchain technology.
Anonymity, no restriction on transaction,	The anonymity of cryptocurrency makes it
user can send currency anytime anywhere.	attractive to money launderers and to the
	black market.
No transaction fees.	User cannot reverse the payment once it is
	done. You can't rollback the transaction any
	cost.

A government can't De-monetize.	Government haven't given any official
	approval for cryptocurrency transaction.
	Government can ban or illegalize the
	transactions since they can't control the
	cryptocurrencies.
Cryptocurrency transactions do not use any	If user forget cryptocurrency password
identity of users.	(wallet key) then it is not possible to revive
	the lost data.
No Inflation	Deflation can happen, in case of bitcoin if
	user holds bitcoin for long time, it gradually
	reduces the supply rate.

Source: Gupta, 2018

Over a short period of time, the prices of the cryptocurrencies can dramatically fluctuate. An asset which can drop in value by more than 45% in less than a day makes the market to be highly volatile. Even though many factors contribute to the highly volatile nature of the cryptocurrency market, the greatest contributor are the whales' activities. Whales are the individuals who possess the largest amounts of cryptocurrency. They can therefore be able to manipulate the prices of the cryptocurrency by selling and buying "walls." When someone buys a wall, they buy a position worth of millions of dollars. When the regular investors notice the big buy position, they interpret it as an imminent increase in price. As a result, the price of the cryptocurrency eventually rises up. There are some competition among cryptocurrencies in the world of virtual currencies. Investopedia 2018 has rank the largest cryptocurrencies by market capitalization of mid July 2018 which are: Bitcoin is the world top currency with a price per coin in excess of \$7,305 USD. Ethereum comes in second of the list with a trading price of more than \$500 per token and the Ripple with total market capitalization exceeding to \$19.8 billion.

Lee & Low (2018) clarifies that another key issue is the pump and dump Initial Coin Offering (ICO) schemes. Because the cryptocurrency market is decentralized, the ICOs have been introduced to control and regulate the market. Investors now have to buy the tokens and be given fiat money in exchange. However, the pump and dump schemes have been a challenge in the market because there is no regulation whatsoever. An entrepreneur who sells the token will make the prices increases, eventually attracting investors. When this happens, they cash out, leaving the investors with coins which have little to no values (Lee & Low,

2018). For example PayCoin launched in 2014, it's becoming one of the biggest cryptocurrencies in the world. It begins with GAW Miners started on 2014 to generate bitcoin they must 'mine' the coins individually, the cycle went until there were more than 10,000 investors and then they were running out of funds to pay the investors. They need money to keep the scheme going. The CEO of GAW Miners, Josh Garza came up with an idea of PayCoin. He quickly converted PayCoin in to generic altcoin clone so he can force it into the market. Unfortunately GAW Miners keep failing and it is shutting down in 2015, one of them being the infamous \$20 PayCoin Floor when PayCoin hit rock bottom (forexNewsNow, 2017).

The next issue is caused by the anonymous nature of the transactions involving cryptocurrency. Cybercriminal are using this inception for their own gains, and as at now, cryptocurrency hacks has been reported to have resulted in millions of dollars being stolen. Those who pay the price are the traders and investors because once they have lost their fortune, their online business and platform crumbles down. The result of the cybercriminal activities has caused the value of cryptocurrencies to drop considerably. To combat such activities, traders have come up with precautionary measures such as creating bottlenecks in the cryptocurrency trading process. The countermeasures have caused a trade-off between security and efficiency, such as storing their cryptocurrencies in offline wallets. The inefficiency problem is when the trader wishes to make an online trade and has to first move his bitcoins from offline and online storage Law Library of (Congress (U.S.), 2018). For example Decentralized Autonomous Organization (DAO) the first digital decentralized investment fund based on Ethereum-Blockchain. DAO started to uses 'smart contract' on 2016 to managing the crowdfunds, later on June 17th hacker took benefit from some of the code of DAO's smart contract and sneak 3.6 million Ether or about 50 million USD on that time (Futurism, 2016).

Lastly, the lack of price uniformity has been another challenge in the cryptocurrency market. Because of the variations in the different exchange platforms, carrying out an investment analysis becomes a problem. Combining these inconsistencies between difference platforms and the volatility in the market has driven away individuals not to depend on cryptocurrencies for their activities.

5. The prospect of cryptocurrency use in entertainment industry

Out of the several cryptocurrencies which exist, the bitcoin is mostly recognized. However, there are other considerable alternatives which have made their way into the digital currency such as the Ethereum, Ripple, Dash and others. The Initial Coin Offerings (ICO) have come into play in the cryptocurrency market so as to convert the legitimacy cryptocurrencies (Lee & Low, 2018). A new protocol has been developed, known as TRON, which has been playing a vital role in converting the cryptocurrencies. TRON was originally designed so as it can be used by the digital entertainment industry so as the various types of entertainment can be offered using blockchain and peer-to-peer technologies (Vo et al., 2017).

Girasa (2018) describes the developers of TRON, have a plan on the way they will regulate the cryptocurrencies. According to their plan which goes as far as 2027, several stages have been put in place. The first two stages have been completed in 2017, but two more stages of the plan are scheduled in 2023. Significant stages which TRON announced are as follows:

- 1. Exodus is the initial stage which primary purpose is to provide a P2P platform so as it can distribute and share content in the entertainment industry.
- 2. Odyssey, the second stage of TRON which aims at putting economic incentives in their appropriate places so as to encourage the entertainment creators.
- 3. Great Voyage in this stage, the issues which are significant in the cryptocurrency markets such as the management of dividend, income payment, and the management of the devoted supporters.
- 4. Apollo, the main objective of the Apollo would be to adding to the Great Voyage phase, by launching personalized tokens which can be used in the decentralization of the trade. It is scheduled to conclude in 2023.
- 5. Star Trek stage is similar to the technology used in the gaming platform Augur. It is expected that when this stage succeeds as expected, the capitalization for TRON will be secure.
- 6. Eternity the last stage of TRON would be to offer the opportunity for developers to be able to create their own online games and also contribute to fundraising events.

Conclusion

In the modern world, technology is proving to develop day in day out with the current trends in the money market. Currencies have different values which are determined by the strengths of the various economic backgrounds. Some currencies are more valuable than others and this is reflected when using the currency exchange rate. The particular rates reflect the value of different countries and it is evident when comparing two currencies from

different economies. With cryptocurrencies some people have changed their tactic and are now using the knowledge of cryptocurrencies to carry out the evil missions (Schaupp and Festa, 2018). cryptocurrency can achieve the required of popularity then it can be one of the most preferred media of exchange since its value would be a uniform all across the globe.

Suggestion

Above summary bitcoin and blockchain technology is still new. The success of bitcoin was spectacular, the challenges of utilizing cryptocurrencies have inspired a new wave of blockchain innovation. This can be complemented to the study on a blockchain-based land registry whether can cure a number of problems eminent domain in the traditional registry including slow registration processes, corruption and fraud in the international markets. The blockchain technology presents opportunities for entrepreneurs to empower the developing world, to reach a wider innovator and build a better future for all.

References

- Dannen, C. (2017). *Introducing ethereum and solidity: Foundations of cryptocurrency and blockcnain programming for beginners*. NY: Apress.
- Girasa, R. (2018). Regulation of Cryptocurrencies and Blockchain Technologies: National and international Perspectives. Cham: Springer International Publishing
- Gomzin, S. (2016). *Bitcoin for nonmathematicians: Exploring the foundations of crypto payments*. Boca Raton, Florida: Universal-Publishers.
- Gupta P, (2018) *Best Advantages and Disadvantages of Using Cryptocurrency* Retrieve from https://www.cryptokosh.com/best-advantage-anddisadvantageof-using-cryptocurrency
- Inverstopedia, (2018) Top 5 cryptocurrency Retrieve from https://www.investopedia.com
- Forex News Now, (2017) Forex Analysis Retrieve from https://www.forexnewsnow.com
- Futurism, (2016) Retrieve from https://futurism.com/failure-of-thedao-should-we-regulate/
- Nashirah A. Bakar, Sofian R, Kiyotaka U (2017) International Journal of Management Science and Business Administration Volume 4, Issue 1, November 2017, 19-28
- Blaker S, (2016) Ledger: *The journal of cryptocurrency and blockchain technology research*. Pittsburgh, PA: University Library System, University of Pittsburgh.
- Lee, D., & Low, L. (2018). *Inclusive fintech: Blockchain, cryptocurrency and ICO*. New York: World Scientific.
- Law Library of Congress (U.S.). (2018). *Regulation of cryptocurrency around the world*. Washington, D.C.: The Law Library of Congress, Global Legal Research Center.

- Raftery, A. (2018). 101 ways to save money on your tax, legally! 2018-19. Milton, Qld: John Wiley & Sons Australia.
- Reed, J. (2016). *Blockchain*. Retrieve from https://files.reedsmith.com/files/Uploads/Documents/2018/Blockchain.pdf
- Nakamoto S, (2008) Bitcoin: A Peer-to-Peer Electronic Cash System Retrieve from https://bitcoin.org/bitcoin.pdf
- White, A. K. (2018). *Bitcoin unleashed: Discover the cryptocurrency of the future (a guide to mining, investing and trading).* United States: Create Space.
- Tumber, R. S. (2015). Cryptocurrency: The New God. Los Gatos: Smash words Edition.
- Vandezande, N., & KU Leuven Centre for IT & IP Law,. (2018). *Virtual currencies: A legal framework*, Cambridge [England]; Antwerp [Belgium]; Portland [Oregon]; Intersentia.
- Vo, N. N. Y., Xu, G., (October 01, 2017). *The volatility of Bitcoin returns and is Correlation to financial markets*. International Conference on Behavioral, Economic, Socio-cultural Computing (BESC).