

Construction of a Concept of Sustainable Residential College in Malaysian Public Universities

Mohd Reduan Buyung, Haryati Shafii & Nurul Rezuana Buyung

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v8-i4/4029>

DOI:10.6007/IJARBSS/v8-i4/4029

Received: 26 Feb 2018, **Revised:** 13 April 2018, **Accepted:** 24 April 2018

Published Online: 27 April 2018

In-Text Citation: (Buyung, Shafii, & Buyung, 2018)

To Cite this Article: Buyung, M. R., Shafii, H., & Buyung, N. R. (2018). Construction of a Concept of Sustainable Residential College in Malaysian Public Universities. *International Journal of Academic Research in Business and Social Sciences*, 8(4), 501–513.

Copyright: © 2018 The Author(s)

Published by Human Resource Management Academic Research Society (www.hrmars.com)

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: <http://creativecommons.org/licences/by/4.0/legalcode>

Vol. 8, No. 4, April 2018, Pg. 501 - 513

<http://hrmars.com/index.php/pages/detail/IJARBSS>

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at
<http://hrmars.com/index.php/pages/detail/publication-ethics>

Construction of a Concept of Sustainable Residential College in Malaysian Public Universities

Mohd Reduan Buyung¹, Haryati Shafii² & Nurul Rezuana Buyung³

^{1&2}Faculty of Business and Technology Management, Universiti Tun Hussein Onn Malaysia.

Johor & ³School of Housing, Building and Planning, Universiti Sains Malaysia.

Abstract

This study is aimed at obtaining early information regarding the construction of a sustainable residential college. The problem of this study is the discomfort of living in residential colleges in Malaysian public universities. Discomfort affects the learning process of the occupants and affects the sustainability of residential colleges. The final impression of this offense leads to a deterioration in the quality of life. The research methodology is based on the literature review of residential colleges, Maslow's Theory of Needs, sustainable development, the influence of comfort and quality of life. The findings show that Maslow's Theory of Needs is used as the basis for the provision of sustainable residential colleges, the concept of sustainable development as the basis for the concept of sustainable residential college and the comfort of the occupants affecting the quality of life as a whole. The future residential college should be developed on the basis of sustainability so residents can live comfortably and conducive thereby leading to improved quality of life.

Keywords: Sustainable, Residential Colleges, Comfort and Quality of Life.

Introduction

The residential college is a special area developed by the university to be inhabited by students. Residential colleges provide accommodation facilities and other basic amenities. Hassan (2000), residential colleges refer to accommodation on campus throughout their study periods in institutions of higher learning in Malaysia. Among the basic functions of a residential college are providing accommodation and accommodation services, maintaining quality and nutrition services provided and ultimately providing conducive learning facilities (Tahir et al. 2011). These facilities are needed so that residents can live comfortably in residential colleges as they are at home. However, the facilities available at residential colleges are of course different from public housing. Public housing facilities for private use while facilities in residential colleges need to be shared. In terms of purpose, the public housing area was developed for profit while the residential college was developed for the welfare of the residents. Finally, residential colleges

provide facilities that support residential learning. Anuar et al (2006), concluded that there are several goals of providing residential colleges, namely:

- a. Provide a fun and rewarding experience to catalyse academic success
- b. Provide student rights for privacy, personal safety and personal belongings while in university.
- c. Create a suitable environment for personal needs to achieve good self-performance.
- d. Create a generation of responsible, culturally intelligent, socially educated, high leadership, able to compete internationally, noble, cultured nation and socialization

In the context of developing a residential area such as the construction of a residential college. Comfort and well-being of the occupants is an important priority. For Oladapo (2006), housing factors are important because it affects human well-being. This statement is also supported by McGregor (2010), that the concept of well-being involves aspects of housing. Therefore, the initiative to develop a sustainable residential college is an effort to ensure university students have a good comfort and well-being during their studies. This study is a preliminary survey aimed at exploring and obtaining information on the need to develop a sustainable residential college. The information obtained from this study will be used to develop a sustainable residential college that provides comfort, well-being and conduciveness to university students. Ultimately it can improve the quality of life of the occupants and preserve the environment

Research Problems

Issues of residents' discomfort when staying in public university residential colleges have affected the quality of life of students. According to Mohd Sari (2003), summarizes the discomfort issues when staying in a residential college. The discomfort when staying at a residential college directly gives a bad impression to the life of the occupants. This statement is supported in the review of Yaacob & Yasak (2008), that the quality of life of students while at university is partly influenced by their place of residence and concludes that there are some facilities provided do not provide good comfort. In the American Federation of Teacher (1997) study: Selamat et al. (2004), found that poor physical condition had a direct impact on students' achievement and discipline. According to Knirk (1979), commenting on students can not understand or process information easily if their physical environment is uncomfortable. In fact, in a study involving residential colleges of three public university research clusters by Mohd Najib et al. (2012) shows that residents of residential colleges are dissatisfied with the support facilities provided. This statement is evidenced in the report of the Ministry of Higher Education Malaysia (KPT 2012), relating to issues and problems in the aspect of the development of student facilities at the residential college ie;

- a. Physical aspects of the student: does not meet the Economic Planning Unit standards
- b. Aspect of basic room facilities: quantity of facilities and deteriorating quality
- c. Support facilitation aspect: the support facility provided can not help the student development aspect
- d. Student's facilitation facilitation: does not meet national and international standards
- e. Administrative facilitation aspects: the need for a complex of facilities, a standardized administrative space

The next impression of dwelling discomfort affects the sustainability of residential colleges. Sustainability has three main dimensions: environmental dimensions, economic dimensions and social dimensions. According to Zakaria (2014), the concept of sustainable development focuses on environmental, economic and social aspects. In the context of environmental dimensions in residential colleges, the impact of lack of landscape preparation will lead to risks of natural disasters such as overwhelming heat, floods and landslides. According to Rahman (2012), natural disasters such as floods, fires and landslides are also a cause of discomfort.

The impact on economic dimensions is a waste of money, energy and time. Financial waste through high renovation and maintenance. According to Fadzil (2004), buildings that are designed with no regard to the will of the occupants, often cause problems especially in terms of modifications. The renovation is not only wasteful in finance but it also involves the time needed for its renovation.

Problems in social dimension will occur when the occupants have discomfort, no peace, no reconciliation and reduce the level of motivation and thus provide unhealthy stress in the aspects of learning at residential colleges. According to Mustafa et al. (2009), the main factor that contributes to stress (pressure) of female students is caused by noise, air and water pollution around the place of study and cause the student not to concentrate fully on learning. In the American Federation of Teacher Selamat et al. (2004), students attending school located near the railway track, showed that the achievement of students in reading was less satisfactory than those who were attending a quiet area.

Overall the disturbance to these three dimensions of sustainability will have a negative impact on the learning process of the occupants. This bad effect can lead to a decline in the quality of life. Yakacob & Yasak (2008), stating that the quality of life of students while at university is partly influenced by their home. Meanwhile, Said & Ahmad (2010) commented that the facilities and services at residential colleges are an important factor in fulfilling the quality of life in residential colleges. For Marzuki et al. (2017), the quality of life of the community is achieved when accreditation of a facility is easily accessible. When housing conditions that can not meet the needs cause dissatisfaction and bring more serious implications such as affecting mental health, environmental pollution, congestion and various life problems (Yahaya, 1998). According to Said & Talam (2010), facilities at residential colleges need to be improved to meet the needs of students.

Residential College as a Basic Requirement

The foundation for a prosperous life is to have a home that is capable of meeting the needs of the occupants. Residence is a basic necessity for human life to protect itself from the threat of nature. In the context of a university student need a residential college to meet the basic needs of a home. According to Tahir et al. (2009), residential colleges are also one of the most important aspects in producing outstanding occupants in academic and personality. Assessment on the development of the concept of sustainable residential college is based on human needs to a comfortable and conducive home. In this study, Maslow's theories of need are used as a guide in providing a residential college that meets the needs of the occupants. According to Zulkepli (2011), the Maslow's Requirement hierarchy involves five stages of needs

that indicate the level of human needs such as physiological needs, safety requirements, social needs and acceptance, appreciation requirements and self-fulfillment needs.

The study of Maslow's Theory of Needs is important to ensure that human needs aspects can be studied in a holistic manner in developing a comfortable and conducive home. A comfortable and conducive residence will encourage residents to stay long in the premises and increase motivation to achieve other necessities. In the context of a residential college as a comfortable student residence will increase the motivation of the occupants to achieve excellence throughout the university. Azlina (2002); Yahaya & Ahmad (2010), individuals will be more convinced of themselves if positive and good responses and services are given to them. Occupants will have a higher motivation to achieve success if their home is comfortable and conducive for learning, self-development and adequate rest. These basic needs include the provision of canteens for nutritious and quality food, residential college conditions that have water, air and noise pollution problems that can interfere with the learning process and get enough sleep / sleep. The basic concept of Maslow's Theory of Needs according to Mok (2011), is;

- a. Motivational motives are internal forces that are in the physiological and psychological development of humans. Maslow believes this internal force encourages humans to pursue the excellent achievements that usually occur spontaneously without control or stimulus.
- b. When individuals get satisfaction in a hierarchy, the need for a higher hierarchy will occur naturally. If a lower hierarchy is still unfulfilled, the need for a higher hierarchy can not be developed.
- c. Human needs in lower hierarchy, the characteristic of the equation, the greater its flexibility, the smaller the difference between individuals. For example, the home, food, beverage, oxygen and other basic necessities for everyone is an indispensable need, but at the top of the hierarchy, only a small number of people can have their satisfaction.

In Maslow's Theory of Needs, the basic necessity stage is a stage involving the provision of a home. At this stage the dwelling is interpreted as a basic necessity that needs to be met first. Residential colleges can be defined as the basic needs of university students to meet. According to Adam (2015), physiological (basic) needs are the most basic requirements that must be met by an individual. Thus it can be concluded that the residential college is a basic necessity that needs to be provided comfortably and conducively so that the inhabitants can live a life of prosperity. Wellbeing will improve the quality of life of the occupants in a lifetime,

The Concept of Sustainable Residential College in Malaysia

The concept of a sustainable residential college is a sustainable home-based college to make residential colleges a comfortable and conducive center of living. Sustainable development is used as a core to ensure that residential colleges are always comfortable to be inhabited by all generations of students. According to Rahman (2012), development means a benefit or improvement and leads to a better quality of life for individuals and their communities. Er et al (2015), the idea of sustainable development covers any element that can affect the physical environment. Suhaimi et al (2010), an approach to development that provides balance to economic and social progress, demonstrates cultural differences and respects ecological values and boundaries of treatment, is key to sustainable development. While sustainable development

according to Wheeler (2004), is a development that meets current needs without affecting future generations' ability to meet their needs. It is clear that the concept of sustainable development is a concept that can lead to human well-being and the environment. Housing colleges that do not consider environmental factors will bring a variety of problems to future residents.

Sustainable development has three main dimensions that need to be scrutinized to ensure the development of residential colleges is to achieve its goals. The development of the concept of sustainable residential college should examine every dimension of sustainability that is environmental, economic and social. According to Shafii et al. (2013), the concept of sustainability emphasizes the three dimensions of importance and interdependence in the development of a country - environmental, economic and social growth. In Hopwood (2005), sustainable urban development should involve three basic principles such as clean water and air (Environment), harmony social life (Social) and rapid economic growth (Economy).

Environmental dimensions: Environment is one aspect that affects the quality of human life. In the event of any disruption to the environmental ecosystems, it will invite problems to humans. Problems arise such as large floods, landslides and epidemics. These environmental problems may also occur in residential colleges if they do not consider environmental aspects in their development. For example, one of the main environmental issues is air pollution. According to Ismail (2012), air pollution in developed countries is largely due to the emission factor of harmful gases to human health generated by industry and transportation. In developing a sustainable residential college, priority should be given to the provision of eco-friendly transportation facilities such as bicycles and pedestrian paths to reduce dependency on motor vehicles capable of polluting the air.

In the context of residential colleges, such contaminants will occur if residential colleges are not designed, developed and carefully managed. Problems such as extreme heat, floods, landslides and poisoning can occur in the future, thus affecting the security of the occupants. The development of residential colleges that take into account the environmental sustainability of the environment is capable of avoiding the catastrophic consequences of human acts. Hence, in the future every residential college must ensure that development does not affect the environment to ensure safety, health and harmony of life.

Economic dimension: In Idrus (2009), this concept is linked to a form of balanced development and the economy grows fresh to build wealth and is used to develop the identity of society. Mamat (2009), the economic dimension of sustainable development requires continued economic efficiency and economic growth over time. In the context of residential college development, economic dimensions involve the use of resources such as water, electricity, finance and so on that involve the cost of operating a residential college. The economic dimension factor does not achieve sustainability in the event of a waste in terms of excessive use of electricity and water and high maintenance costs. These problems can occur when residents do not have enough facilities to cause their own additional equipment into the residential college. Environmental factors can also contribute to the absence of economic dimensions when heating around residential colleges due to lack of attention to landscape areas will increase the use of electrical appliances such as fans and air conditioning which will definitely increase the cost of residential college operations.

Social dimensions: According to Abas (2014), outlines that strong interactions and ties between multiracial society and various religious affiliations are very important in a social

structure. Slaper & Hall (2011), referring to a social dimension of a community or region and may include education measurement, equity and access to social resources, health and well-being, quality of life, and social capital. In the context of social dimensions in the residential college, it is a student housing community that involves a variety of backgrounds but has the same goal of achieving excellence in academic and self-esteem. Students living in residential colleges are community students who need a comfortable and satisfying environment especially when it comes to learning related activities, personal development and relaxation. Unsuspecting atmosphere, no peace of mind, no intrusions, no respect for personal rights and so on in residential colleges will bring unnoticed, uninspired and incapable focus on learning. This problem will affect the life and learning of students who are in the residential college community. This problem will cause residential colleges not to sustain.

The Concept of Sustainable Residential College and Comfort

A comfortable residential college is one of the factors contributing to the motivation of the residents to achieve success throughout the university. In Said & Ali (2010), formulating the comfort and physical environment of the campus is an important criterion that attracts students and affects / determines their comfort over an institution. The study was conducted by Mustafa et al. (2009), found that among the factors of student's lack of interest in a lesson was caused by an unpleasant environment. According to Adebayo & Seow (2012), comfort is a state of satisfaction with something or freedom from pain and anxiety and a happy state of things. If a residential college can not provide comfort to the residents then there will be various problems in the future which will have an adverse impact on the life of the occupants. Tahir et al. (2009), adding that the study found that the environment in residential colleges was also very important in helping to improve the comfort of the students to study. Residents can not focus on the learning process if their physical condition is uncomfortable. Said & Ahmad (2010), many facilities and services will make life easier and comfortable.

The occupancy room is the main hall of a residential college. The main function of a residential college is to provide lodging facilities to students especially those who live far away from home. Shafii et al (2013) the purpose of a residential college erected was to place students away from the school. In the context of student life in a residential college, the provision of accommodation rooms should provide comfort to the residents as best they can. Proper amenities such as comfortable study tables and chairs are essential to ensure that residents can do learning activities such as review or assignment while staying in a residential college comfortably. According to Zakuan (2003), students can not concentrate fully on the teaching and learning sessions that are carried out if they are not comfortable with table chair equipment provided. Things supported by Osman (2003), chairs and tables are not only important for the sole purpose of work but in process or learning activities. This statement proves that there is an influence on room facilities on the learning process of the occupants. Discomforts on the provision of furniture such as chairs can affect the health of the occupants. In a study by Nor Azmi (2006), states that even sitting in the seat is said to be not doing the heavy work but it also affects the human body. Among the long-term effects mentioned include back pain, varicose veins, neck stiffness, numbs and headaches. The residential college occupancy room is a multifunctional room. In addition to providing facilities for learning purposes, the room also provides the convenience of relaxing or sleeping. Therefore, the study concludes that the provision of facilities

at residential colleges, especially for accommodation rooms, should be comfortable and conducive to ensure that resident activities are operating smoothly.

Residential College and Resident Quality of Life

The concept of quality of life is a concept that shows the individual or community's satisfaction towards their lives within an area. The quality of life can be increased and decreased depending on the circumstances that individuals or communities receive either satisfaction or not. Quality of life encompasses all aspects of life in individuals and communities. According to Ramli et al. (2014), quality of life is a concept that emphasizes better living conditions, taking into account the various factors that affect them as physical, psychological, economic, cultural, political, environmental and so on. Hamid (2006) study that life quality indicators illustrate the combination of income, health, employment, education, housing, recreation and leisure. However, in contrast to Shafii's (2011) opinion, which defines the definition of quality of life shows how difficult it is to be defined, as it leads to a diverse concept. Quality of life not only involves the standard of living, but also describes the material, availability and accessibility of social, economic, transport and infrastructure facilities as well as the choice of recreational facilities and parks. This means that the quality of life is not merely a matter of reference but involves some aspects.

In the context of student life at a residential college, the quality of life can be enhanced when all student facilities are met as well as possible. This statement is backed by Thompson (2007), who lives on campus today and will come to impact on student academics. The conditions in residential colleges such as uninteresting environments, unsatisfactory basic facilities, compact and narrow rooms, lack of recreational areas and so on will cause discomfort in student life and consequently have adverse effects on their academic performance. According to Ahmad (2013), the quality of human life can be divided into eight main principles: emotional well-being, interpersonal relationships, hardware wellbeing, personal development, physical well-being, decision-making, social relations, and rights. The residential college should ensure that the principles are satisfactory so as not to have any negative impact on the physical and mental condition of the student. According to Hassan (2006), several factors such as water, air, soil quality and green area availability affect the quality of life. This means that residential colleges also need to be developed with appropriate orientation in its development site to enable residents to get fresh air, adequate light and protected from catastrophic events such as floods and landslides. The items mentioned above are essentially the basis of the quality of life of a dwelling dweller for comfort and safety. However, the question arises: how does the residential college work well to support student learning and social development activities if the initial plan does not meet the needs of student life?. The question is also raised in the study of Shafii et al. (2013), which addresses issues related to the quality of life, the environment, the planning, the indoor and outdoor facilities, the design, the residential college landscapes to achieve the well-being of students. While Nurizan (1998) states that home (living) and environment are one of the basic necessities and it affects the quality of life. This means that if this fundamental thing is not fulfilled then the probability of a future problem will be high which in turn will affect the quality of the occupants' lives.

In a study by Said & Ahmad (2010), the quality of living in residential colleges has listed eight aspects to determine the satisfaction of students' quality of life while staying at a residential college, namely:

- a. Residential college environment: The atmosphere of learning, the mood of sleep, the level of intimacy, the opportunity to meet and interact with others, the level of community awareness at the level of the home, the level of staff action on the noise level, the level of respect for others towards personal rights and freedom from any form of violation or disturbance.
- b. Facilities and services: In connection with the provision of maintenance services, cleaning services, physical conditions, television services, authorized travel time, vending machines, washing machines, study lamps and so on. Facilities for public or shared use are also provided at each level such as television, shelter, toilets and lifts. This facility needs to be maintained by the residents as best they can.
- c. Staff Services and Student Appointments: Staffing and Student Committee members are also an important aspect in creating a comfortable life in a residential college. Fellows and student committee members in residential colleges are channels designed to represent students in the event of any problems.
- d. Administrative office administration: Efficient and friendly service and caring for college staff is very important to ensure that all life-related matters in college are running smoothly.
- e. The whole life experience in a residential college: The experience of staying in a dorm during school time helps a lot of students step into the higher education or work gates. However, when compared to living in a dormitory, life in a residential college is more challenging. If comparisons between individuals who grow up with school-age life managed by parents with individuals living in dorms, life in the dormitory gives more advantage to someone in the life of living in a residential college
- f. Supervision and safety: Surveillance and security at residential colleges are particularly important. This coincides with Maslow's needs hierarchy theory (1957) stating that there are five basic human needs in their lives where one of them is security requirements.
- g. Programs and activities carried out: Activities or programs for athletes or athletes after learning to fulfill their leisure time.
- h. Cafeteria Service: Time is very valuable to a student. This is because they need to pursue time to do lesson review activities. Thus the well-managed cafeteria facilities and provide fast and efficient food services

The development of sustainable residential colleges can improve the quality of occupants. Residents are able to carry out self-study and self-development activities in a comfortable way to further enhance their academic achievement. The goal of the university to produce smart and well-educated students can also be achieved through a sustainable residential college. This is supported by Mat & Boon (2010), a residential college is a very important place to realize the goal of creating a student who excels not only academics, but also has diverse skills in all fields.

Conclusion

The future residential college is a student settlement capable of providing comfortable and conducive basic amenities. The residential college has its own influence on the quality of life

of the student. Residential colleges that are uncomfortable inhabited will disrupt the learning process of students in academic and personality development thus further leading to a deterioration in quality of life that can affect students' achievement. The concept of a sustainable residential college that emphasizes sustainable development as a core in the development of residential colleges will help residents achieve the comfort of living in residential colleges. The development of the concept of sustainable residential college is also a basic necessity according to Maslow's Theory of Needs and authorities as the university needs to provide it with a complete range of facilities. It is therefore important to ensure the quality of life of the student can be improved through the development of a sustainable residential college to complement the quality of education that will produce excellent human capital in the future

Corresponding Author

Mohd Reduan Buyung
Faculty of Business and Technology Management,
Universiti Tun Hussein Onn Malaysia.
Malaysia
Email: reduan_1986@yahoo.com
Universiti Tun Hussein Onn Malaysia (UTHM)
86400 Parit Raja, Batu Pahat
Johor, Malaysia

References

- Abas, M. A. (2014). *Persepsi Komuniti Peniaga di Kejiranan Universiti Sains Malaysia, USM Terhadap Amalan Kitar Semula Sisa Pepejal*. Retrieved from http://www.academia.edu/6603004/Persepsi_Komuniti_Peniaga_di_Kejiranan_Universiti_Sains_Malaysia_USM_Terhadap_Amalan_Kitar_Semula_Sisa_Pepejal.
- Alwee, M. F., Darus, F. M., & Sarah, Z. (2008). Selamatkah kolej kediaman untuk pelajar kita?. In *Seminar Tadbir urus Kemudahan Kediaman Pelajar Se-Malaysia 2008*. 12 – 14 November 2008, Hotel Putra Palace, Kangar, Perlis. Universiti Teknologi Mara.
- Adam, M. (2015). *Kritik dan Kelemahan Teori Abraham Maslow (Motivasi)*. Retrieved from https://www.academia.edu/17353282/Kritik_dan_Kelemahan_Teori_Abraham_Maslow_Motivasi
- Adebayo, C. O., & Seow, T. (2012) Comfort in housing as it relates to housing quality among low cost housing inhabitants. In: *International Conference of Technology Management, Business and Entrepreneurship 2012 (ICTMBE2012)*, 18-19 December 2012, Renaissance Hotel, Melaka, Malaysia.
- Anuar, M., Darus, M. F., & Yahya, S. Y. (2006). Memperkasakan Modal Insan: Peranan dan Cabaran Kolej Kediaman di Universiti Teknologi MARA, Shah Alam. In *Proc. Conf. on Persidangan Kebangsaan Pembangunan Pelajar*. Hotel Grand Season, Kuala Lumpur.
- Ahmad, A. (2013). *Keputusan Pendidikan Dalam Penentuan Kualiti Hidup Sejahtera*. Universiti Sains Malaysia Retrieved from <http://web.usm.my/education/MEDC/Vol2/1.%20KEPENTINGAN%20PENDIDIKAN%20DALAM%20PENENTUKAN%20KUALITI%20HIDUP.pdf>

- Rahman, A. H. (2012). *Pembangunan dan Keterancaman Alam Sekitar. Manusia dan Kelestarian Persekitaran 11-22*. Terengganu. Publisher UMT.
- Hamid, C. H. (2006). *Persepsi Kualiti Hidup : Tinjauan Ke Atas Penduduk Bandar Seri Kertih, Kemaman, Terengganu*. Universiti Malaya
- Er, A. C., Awal, N. A., & Shamsudin, M. F. (2015). Kesedaran awam terhadap pemeliharaan dan pemuliharaan alam semula jadi: Kes Taman Wetland, Putrajaya. *GEOGRAFIA Malaysian Journal of Society and Space* 11 issue 8 (13 – 26) 13
- Abas, M.A. (2014). *Persepsi Komuniti Peniaga di Kejiranan Universiti Sains Malaysia, USM Terhadap Amalan Kitar Semula Sisa Pepejal*. Retrieved from http://www.academia.edu/6603004/Persepsi_Komuniti_Peniaga_di_Kejiranan_Universiti_Sains_Malaysia_USM_Terhadap_Amalan_Kitar_Semula_Sisa_Pepejal.
- Hassan, N. (2006). *Dinamika masyarakat Bandar Malaysia*. Universiti Malaya
- Knirk. (1979). in Shamsuddin, S., Sulaiman, A.S., Lamit, L., Abd. Aziz, N., Omar, R. & Md Noor, M. (2007). *Kriteria Reka Bentuk Persekitaran Kampus Yang Kondusif Bagi Institusi Pengajian Tinggi Di Malaysia*. Universiti Teknologi Malaysia
- Ismail, H. (2012). *Hubungan Manusia dan Persekitaran Fizikal: Suatu Ulasan Literatur Kemerosotan Kualiti Udara dan Sungai Bandar..* Manusia dan Kelestarian Persekitaran 23-47. Penerbit UMT
- Idrus, S. (2009). *Pembangunan Mampan Utamakan Rakyat* Retrieved from http://ww1.utusan.com.my/utusan/info.asp?y=2009&dt=1124&pub=Utusan_Malays&sec=Rencana&pg=re_02.htm#ixzz4dA2kO8HD © Utusan Melayu (M) Bhd
- Hassan, M. S. N. (2000). *Persepsi Mahasiswi Terhadap Kemudahan Asas Yang Disediakan Di Kolej Kediaman Pelajar UTM*. Bachelor's thesis. Universiti Teknologi Malaysia (Unpublish)
- Mamat, M. (2009). *Prinsip Pembangunan Mampan dalam Novel 'Desir Angin di Pergunungan'* Retrieved from http://www.ukm.my/jmalim/images/vol_10_2009/a12%20maharam.pdf
- Najib, M. N. U., Yusof, N. A., & Sani, Md. N. (2012). The Effects of Student' Socio-Physical Background onto Satisfaction with Housing Facilities. *Journal of Social and Behavioral Science* 62, 64-74.
- Ministry of Higher Education Malaysia. (2012). *Buku garis panduan pengurusan dan pembangunan kemudahan kolej kediaman IPTA*. Putrajaya: Bahagian Perancangan dan Penyelidikan. Kementerian Pengajian Tinggi Malaysia.
- Mustafa, M. Z., Suradin, A., Muhammad, S. S., Madar, A. R., dan Razzaq, A. R. (2009). *Kajian Stres Dalam Kalangan Pelajar Wanita Program Sarjana Muda Kejuruteraan Di Universiti Tun Hussein Onn Malaysia (UTHM)*. Retrieved from <http://eprints.uthm.edu.my/322/>
- Marzuki, M. (2012). *Perancangan Dan Pengurusan Ke Arah Pembentukan Pengangkutan Dan Lalu Lintas Lestari Di Universiti Pendidikan Sultan Idris*. Project Report. Universiti Pendidikan Sultan Idris. . Retrieved from http://ipgktb.edu.my/lestari/ipglestari/kertas_lestari2012/Mazdi%20bin%20Marzuki,%20Ph.D.pdf
- Mok, S. S. (2011). *Pedagogi Untuk Pengajaran Dan Pembelajaran*. Penerbitan Multimedia Sdn.Bhd
- Zakuan, M. S. R. (2003). *Ergonomik dalam rekabentuk kerusi dan meja makmal lukisan kejuruteraan di Sekolah Menengah Teknik dari perspektif pelajar*. Fakulti Pendidikan Bachelor's thesis. Universiti Teknologi Malaysia. (Unpublish)

- Sari, M. K. A. (2003). *Kajian keselesaan terma di penginapan pelajar Universiti Sains Malaysia*. Master Thesis. Universiti Sains Malaysia. (Unpublish)
- Tahir, M. L., Yusof, M. S., & Nawi, M. S. (2009) *Peranan Kolej Kediaman dalam Mewujudkan Budaya Pembelajaran Pelajar di Universiti Teknologi Malaysia, Skudai*. Project Report. Faculty of Education, Skudai, Johor. (Unpublished)
- Mat, N., & Boon, Y. (2010) *Tahap Kepuasan Pelajar Terhadap Pengurusan Asrama Di Kolej 9, Universiti Teknologi Malaysia, Skudai, Johor*. *Universiti Teknologi Malaysia*. Retrieved from http://eprints.utm.my/14953/1/eprint13-Tahap_Kepuasan_Pelajar_Terhadap_Pengurusan_Asrama_di_Kolej_9.pdf
- Tahir, M. L., Yusof, M. S., & Nawi, M. S. (2011). *Peranan pihak pengurusan kolej kediaman dalam mempertingkatkan pembangunan pembelajaran pelajar, Universiti Teknologi Malaysia: Skudai*. UNSPECIFIED. pp. 1-10. (Unpublished)
- McGregor, S. L. T. (2010). *Well-being, Wellness and Basic Human Needs in Home Economics*. Retrieved from http://www.consultmcgregor.com/documents/publications/well-being_wellness_and_basic_human_needs_in_home_economics.pdf
- Nurizan, Y. (1998). *Kualiti perumahan dan kualiti hidup*. Universiti Putra Malaysia.
- Azmi, N. A. (2006). *Kajian Menentukan Ukuran Dimensi Dan Keselesaan Kerusi Belajar Di Perpustakaan Sultanah Zanariah (PSZ) UTM Skudai*. Bachelor's thesis. Universiti Teknologi Malaysia
- Oladapo, A. A. (2006). A study of tenant's maintenance awareness, responsibility and satisfaction in institutional housing in Nigeria. *International Journal of Strategic Property Management*, 10(4), 217-231
- Osman, N. A. (2003). *Knowledge Level of the Teachers Regarding the Surrounding Environmental Issues at One of The School in Perak State*. Master of Education Project Paper. Faculty of Education, University of Malaya. (Unpublished)
- Ramli, N. H., Mustafa, Z., & Hamid, A. B. M. R. (2014). *Pengenalan : Kesihatan Dan Kualiti Hidup Masyarakat*. Universiti Malaysia Pahang
- Suhaimi, N., Mahmud, S. M. Z., Ariff, N. A. M., Hamzah, R., & Saud, M. S. (2010). *Pelestarian Kurikulum Pendidikan Teknik Dan Vokasional (PTV)*. Edupress. Retrieved from http://eprints.utm.my/14956/1/eprint16-Pelestarian_Kurikulum_Pendidikan_Teknik_dan_Vokasional.pdf
- Selamat, R., Ahmad, U. N. K., Razak, A. N. Z., Ali, L., Aziz, A. A., Ahmad, S. F., & Khalid, A. (2004). *Kajian Ke Atas Persekitaran Pengajaran Dan Pembelajaran Fakulti Pengurusan Dan Pembangunan Sumber Manusia: Ke Arah Pembentukan Persekitaran Yang Optimum Dalam Mencapai Kecemerlangan Pengajaran Dan Pembelajaran*. Vot Penyelidikan: 75012. Universiti Teknologi Malaysia. (Unpublish)
- Fadzil, S. F. (2004). *Garis Panduan Reka Bentuk Bangunan Asrama Di Universiti Sains Malaysia*. Pulau Pinang. Universiti Sains Malaysia.
- Said, H., & Ali, M. N. (2010). *Kepuasan Mahaiswa Mahasiswi Terhadap Kualiti Kehidupan Di Kolej Tun Fatimah, Universiti Teknologi Malaysia*. Retrieved from http://eprints.utm.my/10729/1/KEPUASAN_MAHASISWI_TERHADAP_KUALITI_KEHIDUPAN_DI_KOLEJ.pdf
- Said, H., & Ahmad, N. S. (2010). *Kepuasan Mahaiswa Mahasiswi Terhadap Kualiti Kehidupan Di Kolej Tun Fatimah, Universiti Teknologi Malaysia*. Retrieved from

- http://eprints.utm.my/10729/1/KEPUASAN_MAHASISWI_TERHADAP_KUALITI_KEHIDUPAN_DI_KOLEJ.pdf
- Shafii, H., Wee, S. T., & Yassin, A. M. (2013). Kolej Kediaman Lestari (KKL) di Malaysia: Kajian awalan terhadap kesesuaian konsep. In. *Prosiding Seminar Serantau ke-2 Pengurusan Persekitaran di Alam Melayu*, 6-7 Mei 2013, Provinsi Riau, Indonesia.
- Slaper, T. F., & Hall, T. J. (2011). *The Triple Bottom Line: What Is It and How Does It Work?*. Economic Research Analyst, Indiana Business Research Center, Indiana University Kelley School of Business. Retrieved from <http://www.ibrc.indiana.edu/ibr/2011/spring/article2.html>
- Zakaria, S. Z. (2014). *Pengetahuan Terhadap Alam Sekitar Dalam Pendidikan Sains Sekolah Rendah Asas Pembangunan Lestari. Pembangunan Lestari Di Malaysia: Harapan Dan Kenyataan*. Kuala Lumpur. Dewan bahasa dan pustaka.
- Thompson, K., Murphy, N., Sasse, R., & Huss. B. (2007). *Benefits of On Campus Housing for Students, Colleges and Universities*. The South West Association of College and University Housing Officers. Retrieved from https://www.academia.edu/7378494/The_South_West_Association_of_College_and_University_Housing_Officers_Benefits_of_On_Campus_Housing_for_Students_Colleges_and_Universiti
- Wheeler, S. M. (2004). *Planning for Sustainability*. Routledge
- Yaacob, M. A., & Yasak, Z. (2008). Pengaruh penginapan ke atas disiplin pelajar di Universiti Tun Hussein Onn Malaysia. In. *Persidangan Pembangunan Pelajar Peringkat Kebangsaan*, 22-23 Oktober 2008, Universiti Teknologi Malaysia.
- Yahaya, A. & Ahmad, N. (2010) *Teori-Teori Konsep Kendiri*. Retrieved from http://eprints.utm.my/10368/3/Norlaily_Binti_Ahmad.pdf
- Zulkepli, M. (2011) *Pembangunan model penentuan keperluan perumahan. Kajian kes: Johor Bahru, Malaysia*. Master thesis. Universiti Tun Hussein Onn Malaysia yang tidak diterbitkan.