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THE EFFECT OF LEARNING ENVIRONMENT TOWARDS PSYCHOLOGICAL WELLBEING AND ACADEMIC ACHIEVEMENT OF UNIVERSITY STUDENTS.

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Abstract

This study aims to measure the effect of the learning environment and psychological wellbeing on the academic achievement of students from Sultan Idris Education University. Information was obtained from the questionnaire involving 542 second year Bachelor Degree students at Sultan Idris Education University. The questionnaire used to measure students' environment is Dundee Ready Education Environment Measure (DREEM) by Roff et al., (1997). Psychological wellbeing was measured using Ryff's Scales of Psychological Well-Being by Carol Ryff (1989). Academic achievement was based on the Grade Point Average (GPA). The result shows that the learning environment in relation to social, academic and lecturer is the predictor that has a significant correlation and contribution on students' psychological wellbeing. The result also shows that only the academic-related learning environment is the only predictor that has a correlation and contributes to students' psychological wellbeing. Conclusively, a good learning environment is very important to sustain students' psychological wellbeing and increase their academic achievement. This study gives an implication that university has to inculcate and sustain a learning environment that is conducive encompassing the physical condition, where learning takes place and encompassing anything related to university education, including the relationship with the lecturers, classmates and the whole culture of the program.

Introduction

Students in university need to adapt themselves with their learning environment. To face the environment in the university, a few basic individual requirements have to be fulfilled. The learning environment is not only related to the physical state where learning occurs, but it also covers anything related to education in the university, including the relationship with the lecturers, classmates and the whole culture of the program. According to Roff et al. (1997), educational environment encompasses five domains on students' perceptions of learning, students' perceptions of teachers, students' academic self-perception, students' perception of atmosphere, and students' social self-perceptions

According to Bakhshi, Bakhshialiabad & Hassanshahi (2014), learning environment related to learning system is very important since it may determine the quality of the students produced by the university. Meanwhile, according to Waghmare (2016), students with high psychological well-being possess decent mental health, positive attitudes and good relationship with others. Therefore, to conceptualize the multidimensional nature of psychological wellbeing, Ryff (1989) claimed that favorable psychological performance involves various intersecting features that resulted from the incorporation of "mental health, clinical, and life span developmental theories", such as self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth.

Learning environment can leave an impact on the students' psychological wellbeing. If there is a lack of balance between the learning environment and the instruction to complete the assignment as well as the involvement in the university program, this can easily impose academic pressure to the students. A study by Malarvili Ramachandiran & Saroja Dhanapal (2018) showed that university students experienced stress at moderate and high level. Next, a study by Shamsuddin et. al., (2013) showed that there were university students who experienced depression, anxiety and stress. The study by Lee and Syaid (2017) demonstrated that most respondents experienced depression when their learning environment was not comfortable or when they faced problems with parents, friends and lecturers. As stated by Carnicer, Calderon and Garrido (2019) university students would experience more stress if they adopted the avoidance coping strategies. Students who adopted the cognitive avoidance action scale and lean more towards the problem-focused coping experienced less stress and proved that their academic achievement were better. A study by Anis Hussain Jaffery & Maneeza Kishwar Ziauddin (2019) showed that there was a positive correlation between learning environment and academic achievement. Students who have positive perception related to learning environment tend to have better academic achievement. A study by Azyyati Zakaria et. Al (2017) indicated that high-achieving students have moderately high level of life satisfactions among trainee teachers.

Academic achievement is the variable used to measure student performance. Bruce and Neville (1979) advanced the notion that academic

achievement was measured by standardized achievement test developed for faculty subjects. A student must have successfully completed certain courses and achieved certain grade point average for given semesters. Studies by Noona Kiuru, Ming-Te Wang, Katariina Salmela, Lasse Kannas, Timo Ahonen & Riikka Hirvonen (2019), Hart (2016), Syeda Razia Bukhari and Sarwat Jahan Khanam (2017), Ahmad Zamri Khairani, Izazol Idris and Hasni Shamsuddin (2018) indicated that psychological well-being such as interpersonal relationship quality, anxiety, depression and social-psychological functioning were related with academic achievement. Meanwhile, another study by Khan, Rayna Sadia, Saba Zahid Hayat, and Sonia Tahir (2019) on university students indicated a negative relationship of classroom related boredom with learning climate and intrinsic motivation.

Based on the studies conducted, learning environment has a relationship and gives an impact to the psychological wellbeing and academic achievement. In teacher education students, it is crucial to measure the harmful effects of stress on well-being and academic achievement. It might prevent the long-term problems in professional and personal life as a teacher. Therefore, the aim of this study is formed to measure the effect of the learning environment on the psychological wellbeing and students' achievement at the university.

Study Objectives

This study measures the effect of the learning environment on the psychological wellbeing and academic achievement of university students in Sultan Idris Education University. The objectives are as follow:

1. To measure the effect of the learning environment domains on students' perceptions of learning, students' perceptions of teachers, students' academic self-perception, students' perception of atmosphere, and students' social self-perceptions on psychological wellbeing
2. To measure the effect of the learning environment domains on students' perceptions of learning, students' perceptions of teachers, students' academic self-perception, students' perception of atmosphere, and students' social self-perceptions on students' academic achievement.

Literature Review

There are numerous studies that relates learning environment with psychological well-being and academic achievement . Mohd Nazli Mohd Nor, Hairul Suhaimi Nahar, Bakhtiar Alrazi & Roshaliza Taha (2019) showed that the sources of stress were related to the academic environments such as assessment format, academic load and subject difficulty. Meanwhile another study by Wilcox (2019) indicated that academic satisfaction and school connectedness predicted satisfaction with life, college well-being predicted self-reported achievement, and anxiety predicted achievement but depression did not.

A study by Cantekin (2020) discovered that gender, grade, administrative services and practices, and physical setting and equipment positively affected students' achievement. Brallier (2020) studied the multidimensional construct

of student engagement to predict students' academic achievement. Student engagement was analyzed by exploring variables related to cognitive, behavioral, and emotional engagement. It was predicted that variables related to emotional engagement (social support and test anxiety), behavioral engagement (study behaviors and procrastination), and cognitive engagement (goal orientation, grit, locus of control, and metacognition) would have a significant relation to overall college Grade Point Average (GPA). A study by Mohd Azry Abdul Malik, Mazlini Adnan, Norafefah Mohamad Sobri, Amri Abdul Rahman, Jasrul Nizam Ghazali (2017) indicated that physical and psychosocial learning environment have significant and positive relationships with student satisfaction. In addition, the study confirmed that learning environment influenced self-efficacy positively.

Abaid Ur Rehman, Tariq Mehmood Bhuttah & Xuqun You (2020) stated that an increase in social support at educational institute may reduce the effects of burnout and enhance psychological well-being. Ahmad Zamri Khairani Hasni Shamsuddin & Izazol Idris (2019) studied the psychological well-being which recorded the highest mean score with regards to leading purposeful and meaningful life at university but scored low in terms of engagement in their daily activities. Meanwhile Muhammad Bazlan et.al (2020) discovered a significant relationship between psychological well-being and academic achievement.

The conclusion of literature review showed that academic environments may cause stress among university students. Psychological well-being imposed implication on students' academic achievement while physical and psychosocial learning environment is related with students' satisfaction. Learning environment influenced self-efficacy positively. Social support at an educational institute may reduce burnout effects and enhance psychological well-being. Literature review also showed positive correlation between psychological well-being and academic achievement.

Methodology

Survey study was conducted using questionnaire. The respondents of the study were second year students chosen at random among students studying in Universiti Sultan Idris. The study was carried out in nine faculties in Sultan Idris Education University. It involved 20 Bachelor Degree in Education students and non-education students in the university. The questionnaire used to measure students' environment was Dundee Ready Education Environment Measure (DREEM) by Susan Roff and Sean McAleer (1997). Psychological wellbeing was measured based on the Psychological Wellbeing Instrument (Ryff, 1989). Students' academic achievement was measured based on their Grade Point Average (GPA).

Findings

A total of 542 respondents from the second year program had answered the distributed questionnaire. Majority of the respondents in this study were

divided into female students, 272 people (68.6%) and 170 male students (31.4%).

Multiple Regression Analysis (Stepwise) The effects of the learning environment domains on psychological wellbeing.

Learning Environment	Beta				
	B	β	t	R ²	F
Social self-perceptions	6.957	.338	8.593	.305	237.119**
Academic self-perceptions	7.523	.336	8.970	.393	176.350**
Students' perceptions of teachers	3.228	.154	4.376	.413	127.909**

**p<0.001

Multiple regression result showed that three domains of the learning environment related to social self-perceptions, academic self-perceptions and students' perceptions of teachers are the predictor with a significant correlation and contribution (41.6%) ($p < 0.001$) on the scores of students' psychological wellbeing. The main and the highest predictor for students' psychological wellbeing is the learning environment related to social self-perceptions ($\beta = .338$, $t=8.593$ and $p=0.000$) and the contribution of 30.5%. This is proven when the social self-perceptions score is added by one unit, and the psychological wellbeing increases by 0.338. This means that when the learning environment domains which is students' social self-perceptions is high, the psychological wellbeing is also high.

The second predictor which is the learning environment domains related to the academic self-perceptions leaves an impact and contributes 8.8% on the psychological wellbeing ($\beta = .336$, $t=8.970$ and $p=0.000$). This shows that when the score of the learning environment domains which is academic self-perceptions is added by one unit, the psychological wellbeing score is increased by 0.336 unit. This shows that when the score of the learning environment domains which is academic self-perceptions increases when the psychological wellbeing is increased.

The third predictor which is the learning environment domains related to Students' perceptions of teachers also gives an impact and contributes 2% towards the students' psychological wellbeing ($\beta = .154$, $t=4.376$ and $p=0.000$). This shows that when the learning environment domains score related to students' perceptions of teachers increases by one unit, the psychological wellbeing score increases 0.154 unit. This shows that when the learning environment related to Students' perceptions of teachers is increased, the psychological wellbeing also increases.

Multiple Regression Analysis (Stepwise). The effects of the learning environment domains on academic achievement

Learning Environment	Beta
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	B	β	t	R ²	F
Academic self-perceptions	.152	.242	5.805	.059	33.693**

**p<0.001

The multiple regression result shows that the learning environment related to academic self-perceptions aspects has a correlation and contributes 5.9% on students' academic achievement ($\beta = .242$, $t=5.805$ and $p=0.000$). This shows that when the learning environment score related to academic self-perceptions aspects increases one unit, the academic achievement score increases by 0.242 unit. This indicates that the learning environment related to academic self-perceptions increases, the academic achievement increases.

Conclusion and Recommendation

The multiple regression result shows that the three domains of the learning environment related to social self-perceptions, academic self-perceptions and students' perceptions of teachers are the predictor that has a significant correlation and contribution on the students' scores of psychological wellbeing. The main and the highest predictor for students' psychological wellbeing is the learning environment related to social self-perceptions, followed by academic self-perceptions and students' perceptions of teachers. The main and the highest predictor for students' psychological wellbeing is the learning environment related to social self-perception. This study indicates that the university provides support system that may reduce stress among students. They also enjoy their study program, especially for those who have good friends, comfortable accommodation and live their social life well. Stress leaves an impact on the psychological wellbeing. Thus, there should be an intervention to increase students' psychological wellbeing.

Literature review showed improving psychological well-being may lead to success in academic field (Ruppel, Liersch & Walter, 2015), self-esteem (Ameri & Bagheri, 2015) and intelligence (Wigtil & Henriques, 2015). Social interactions enhance positive wellbeing among students, as they have a superior "sense of belonging" that affect their "class enjoyment". Abaid Ur Rehman, Tariq Mehmood Bhuttah & Xuqun You (2020) findings showed that increament in social support at educational institution may enhance psychological well-being. Wan Shahrazad Wan Sulaiman et. al (2013) showed that there were significant relationships between, coping strategy and social support with well-being.

The factor of self-perception on the social aspect shows that the university provides a support system for the students to handle stress. Various activities were conducted during the teaching and learning process causing students to not feel bored in their studies at the university. Peer support during the program especially when involving group task contributes to the students' psychological wellbeing. Social support from the university is essential, due to the fact that the work by Carnicer, Calderon and Garrido (2019) on the university students showed that more students experience stress as they used the avoidance coping

strategies . This study supported the research conducted by Mohd Nazli Mohd Nor, Hairul Suhaimi Nahar, Bakhtiar Alrazi & Roshaiza Taha (2019) which indicated stress among university students were due to the difficulties in assessment format, academic load and subject.

Activities related to psychological well-being were considered very important. Studies conducted by Shamsuddin et. al., (2013) and Malarvili Ramachandiran & Saroja Dhanapal (2018) indicated that university students experienced stress symptoms. A study by Ahmad Zamri Khairani Hasni Shamsuddin & Izazol Idris (2019) indicated highest regards resulting in purposeful and meaningful life at university, meanwhile Syeda Razia Bukhari and Sarwat Jahan Khanam (2017) indicated significant positive correlation to subjective happiness and life.

This study showed that the students of Sultan Idris Education University were able to overcome their personal and academic issues. They were also able to handle stress well. Students with low level of stress showcased better academic performances. According to Deasy et al. (2014) and Hoglund, Klinge & Hosan (2015), unhealthy lifestyles, high levels of psychological distress and maladaptive coping strategies may cause stress and thus burnout among students when they become teachers later. A study by Ganesan, Talwar, Norsiah Fauzan and Oon (2018) indicated students with low stress level practiced better stress coping strategies.

The multiple regression result also shows that academic self-perceptions and lecturers are the predictor that has a significant correlation and contribution on the scores of students' psychological wellbeing. Self-perception on academic shows that students' confidence on the learning strategy, tasks and skills to solve problems are effective in helping them to pass the examination. Meanwhile, the perception on lecturers shows that students' perception and a good relationship with the lecturers contribute to students' psychological wellbeing. This encompasses the perception related to the knowledge, communication skills, lecturers' preparation for their lectures and in giving feedback to the students during the lecture and their good interpersonal relationship with the students. The work by Lee and Syahid (2017) showed that a good relationship with the lecturer caused the students to experience less depression.

The result of the multiple regression shows that only the academic-related learning environment is the only predictor that has a correlation and contributes to students' academic achievement. This shows that the factor of the learning strategies that were used previously is effective for task preparation and for passing in the examination. This study on sources of stress were related with the work load in university and their academic achievement may be enhanced through increased quality of interpersonal relationships. Stormont and Young-Walker (2017) found out that those who were confident with what they learnt in university, might help them and provide skills in solving issues in their profession. How students perceive and cope with stressing situations have effect on their academic achievement. A study by Brallier (2020) indicated that study behaviors were found to have a significant relation to overall college Grade Point Average.

Learning environments, psychological well-being are vital and affect students' academic achievement. A study by Anis Hussain Jaffery and Maneeza Kishwar Ziauddin (2019) showed that students' perceptions of their educational environment with pencapaian akademik. Students' perception on positive learning environment would cause better academic achievement. According to Wilcox dan Nordstokke (2019), college well-being predicted self-reported achievement. Another study by Waghmare (2016) indicated high psychological well-being were usually considered as having good mental health level. They also maintain a positive relationship with other individuals around as well as productive and maintain a positive attitude towards life. Meanwhile, a study from Muhammad Bazlan (2020) indicated a relationship between psychological well-being and academic achievement.

Teacher education students need to identify the cause of stress that disrupt their psychological wellbeing and academic achievement. This would enable them to prevent long-term problems related with their profession and personal life. Students must acquire effective coping skills in order to increase their psychological well-being. For instance, students can apply stress management programs which may help them to utilize problem-focused coping such as trying to improve the situation or take action to promote their well-being. In addition, one of the aspect that should be highlighted in stress management programs is the awareness of the negative implications of maladaptive coping such as emotion-focused and avoidant-focused coping on well-being. Students must also be active in physical activities because physically active students have been reported to have better mental health which is linked to; reduced depression, enhanced self-efficacy, self-esteem, social well-being as well as optimistic body image, compared to less physically-active students. Social support is vital in the life of university students. Social support enables the interaction with family, friends, colleagues and others through different perspective, for example, informative, instrumental and social support. Social supports can be referred as the experience of being respected, valued and nurtured by those closest to the individual. Social support is the received support from many sources such as one's affiliated social group or family, teachers, friends and community.

It is crucial for educators to assist students with their psychological well-being. Therefore, in order to assist students with their psychological well-being, educators need to be more open to opt for different approaches in teaching which might be contradicting with the conventional approaches of teaching. It is vital to provide less stressful academic environment by employing the right training for future teachers on diverse teaching methods that are less detrimental to students' psychological wellbeing. Positive feeling has been associated with psychological well-being. Hence, by comprehending this relationship, strategies to enhance the quality of learning environment in university could be developed.

This result may assist policy makers in assessing and determining the appropriateness of the existing quality of learning environment that maintains decent psychological characteristic of students. Students learning activities could be affected by lectures' characteristics which consequently built the presence of stress among the students. The issue of students-lecturers relationship must be properly addressed by the universities as it would improve

both stress situation and students' performance. Therefore, it is hoped that learning environment have positive implications in magnifying the psychological well-being and academic achievement among the students of Sultan Idris Education University.

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References

Abaid Ur Rehman., Tariq Mehmood Bhuttah., & Xuqun You.: (2020). Linking Burnout to Psychological Well-being: The Mediating Role of Social Support and Learning Motivation. *Psychology Research and Behavior Management*, 13: 545–554.

Ahmad Zamri Khairani., Izazol Idris., & Hasni Shamsuddin. (2018). Measuring Social-Psychological Functioning Among Malaysian Pre-Service Teachers. *Asia Pacific Journal of Educators and Education*, 33, 109–122

Ameri,M.S., & Bagheri, O. (2015). Relationship between self-esteem and psychological well-being and mental health of parents of children with normal and border line IQ children. *European Psychiatry*, 30(Supplement 1), 1484.

Azyyati Zakaria., & Nur Hazwani Abdul Halim. (2017) Relationship between life satisfaction and academic achievement among trainee teachers. *Asian Journal of University Education (AJUE)*, 13 (1). 93-112.

Bakhshi, H., Bakhshialiabad, M.H & Hassanshahi, G.H. (2014), Students' perceptions of the educational environment in an Iranian Medical School, as measured by the Dundee Ready Education Environment Measure, *Bangladesh Medical Research Council Bulletin*, 40, 36-41.

Brallier. C. (2020). *The Effects Of Student Engagement On Academic Achievement Among College Students*. (Thesis Master of Arts in Psychology). Middle Tennessee State University.

Bruce, H. C. & Neville, P. (1979). *Evolution of Education*. Oxford: Pengamon Press.

Cantekin, O. F. (2020). The effects of academic self-concept and organizational factors on academic achievement. Bartın University. *Journal of Faculty of Education*. 9 (1), 26-35.

Deasy, C., Coughlan, B., Pironom, J., Jourdan, D., & Mannix-McNamara, P. (2014) Psychological Distress and Coping amongst Higher Education Students: A Mixed Method Enquiry. *PLoS ONE* 9(12).

Hart, B. (2016). The Predictive Value Of Subjective Well-Being And Conscientiousness On Academic Achievement. A Dissertation Doctor of Philosophy in School Psychology Indiana State University

Honglund. W.L.G, Klingle, K. E & Hosan, N. E. (2015). Classroom risks and resources: Teacher burnout, classroom quality and children's adjustment in high needs elementary schools

Ganesan Y.Talwar P.Norsiah Fauzan & Oon Y.B. (2018). A Study on Stress Level and Coping Strategies among Undergraduate Students. Vol 3 No 2 : *Journal of Cognitive Sciences and Human Development*

Jaffery, A., & Kishwar, M. (2019). Student's Perception Of Educational Environment And Their Academic Performance; Are They Related?. *Pakistan Armed Forces Medical Journal*, 69(6), 1267-71.

Jose Gustems-Carnicer, Caterina Calderón & Diego Calderón-Garrido (2019):Stress, coping strategies and academic achievement in teacher education students, *European Journal of Teacher Education* 42(4):1-16

Khadijah Shamsuddin, Fariza Fadzil, Wan Salwina Wan Ismail, Shamsul Azhar Shah, Khairani Omar , Noor Azimah Muhammad , Aida Jaffar, Aniza Ismail , Raynuha Mahadevan. (2013). Correlates of depression, anxiety and stress among Malaysian university students. *Asian Journal of Psychiatry*. August;6(4):318-23.

Kiuru N, Wang MT, Salmela-Aro K, Kannas L, Ahonen T, Hirvonen R. Associations between Adolescents' Interpersonal Relationships, School Well-being, and Academic Achievement during Educational Transitions. *Journal of Youth Adolescence* 2020 May;49(5):1057-1072.

Lee, M. F. and Syaid, S. (2017) Factors Contributing towards Malaysian Technical University (MTU) Students' Mental Health. *Pertanika J. Soc. Sci. & Hum.* 25 (S): 93 - 100 .

Mohd Azry Abdul Malik, Mazlini Adnan, Norafefah Mohamad Sobri, Amri Abdul Rahman, Jasrul Nizam Ghazali.(2017). The relationship between learning environment and psychological characteristics in higher education. *Journal of Advanced Research in Social and Behavioural Sciences* (Volume 7, No. 1, Pages 96 to 117)

Mohd Nazli Mohd Nor, Hairul Suhaimi Nahar, Bakhtiar Alrazi & Roshaliza Taha (2019). Stress Among Accounting Students: A Preliminary Study Of Malaysian Universities. *Journal of Business and Social Development* Volume 7 (1) :9-19

Muhammad Bazlan Mustafa, Nurul Hasyimah Mat Rani, Mohammad Nasir Bistaman, Syed Sofian Syed Salim, Aslina Ahmad, Noor Hayati Zakaria, Nur Azlin Ahamad Safian. (2020). The Relationship between Psychological Well-Being and University Students Academic Achievement *International Journal of Academic Research in Business and Social Sciences*. Vol. 10, No. 7, 2020, Pg. 518 - 525

Roff, S., McAleer, S., Harden, R. M., Al-Qahtani, M., Ahmed, A. U., Deza, H., et al. (1997). Development and validation of the Dundee ready education environment measure (DREEM). *Medical Teacher*, 19(4), 295-299.

Ruppel, F., Liersch, S., & Walter, U. (2015). The influence of psychological well being on academic success. *Journal of Public Health*, 23, 15-24.

Ryff, C.D., (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*. 57(6): p. 1069-81.

Ramachandiran, Malarvili & Dhanapal, Saroja (2018). Academic stress among university students: a quantitative study of generation Y and Z's perception. *Pertanika Journal of Social Scienced & Humanities*. Volume 26, NO 3, September 2018: 2115-2128.

Saira Khan, Rayna Sadia, Saba Zahid Hayat, and Sonia Tahir . (2019). Relationship between Academic Boredom, Learning Climate and Academic Motivation Among University Students. *Pakistan Journal of Psychological Research*, 2019, Vol. 34, No. 3, 621-638

Stormont, M., and L. Young-Walker. 2017. "Supporting Professional Development Needs for Early Childhood Teachers: An Exploratory Analysis of Teacher Perceptions of Stress and Challenging Behavior." *International Journal on Disability and Human Development* 16 (1): 99–104.

Syeda Razia Bukhari & Sarwat Jahan Khanam(2017). Relationship of Academic Performance and WellBeing in University Students. *Pakistan Journal of Medical Research* Vol. 56, No.

Waghmare. R.D (2016). A Study of Psychological Well Being Among Male and Female College Students. *International Journal of Indian Psychology* 3 (3)

Wilcox, G & Nordstokke (2019). Predictors of University Student Satisfaction with Life, Academic Self-Efficacy, and Achievement in the First Year. *Canadian Journal of Higher Education* Volume 49, No. 1, 2019, pages 104 – 124

Wigtil, C. J. & Henriques, G. R. 2015). The relationship between intelligence and psychological well-being in incoming college students. *Psychology Well-Being*, 5(4).