

The Roles of Emotional Intelligence in Developing Optimism among Public University Students in Perak, Malaysia

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Abstract: When Covid-19 hit the globe, Malaysia was specifically affected by the implementation of MCO which restricted its citizens from having their normal daily activities. Malaysian students are especially distressed by the implementation of online learning, whereby they need to cope with the burden of learning without having physical consultation with their lecturers while indulging the 'nuisance' of the home environment. This cross-sectional study was conducted to examine the relationship and impact of emotional intelligence which comprised self-awareness, self-management, social awareness, and relationship management components toward optimism among public university students in Perak, Malaysia. Convenience sampling was applied as the sampling technique in selecting the required sample size of 441 respondents. A set of questionnaires comprised of three sections was used as the instrument and was virtually distributed to the respondents via Google form through their acquaintances. Descriptive analysis findings have demonstrated male students have greater levels of emotional intelligence and optimism as compared to female students. Meanwhile, results from correlation analysis projected each component of emotional intelligence has a large relationship with optimism except for social awareness with a medium relationship. Subsequently, the multiple regression analysis revealed that self-awareness was the strongest predictor of the dependent variable. This study has achieved all research objectives and the hypotheses were supported by the findings. Therefore, a few recommendations for educational institutions as well as future researchers were suggested accordingly.

Keywords: *Emotional Intelligence, Self-Awareness, Self-Management, Social Awareness, Relationship Management, Optimism.*

1. Introduction and Background

In November 2019, Wuhan, China was struck with the first case of COVID-19 which has put the globe on a hot seat as the fear of being in a similar situation starts to linger in everyone's mind. The nobility of the front liners in curbing the situation has put them in the spotlight, yet the citizens feel uncomfortable with unusual norms that they need to engage in, especially on the social distancing part. Nevertheless, as the spread of the pandemic can no longer be controlled by the authorities, making Malaysian government implemented a strict and stern action of Movement Control Order (MCO). This action has disabled everyone including most industries except for the essential sector in Malaysia as normally functioning as usual. This has especially impacted the educational institutions in Malaysia as the students were obligated to stay at home and face-to-face learning was suspended by the institutions (Kamaludin & Sundarasan, 2023). Stuck in the bubble of the comfort zone with physical learning, these students were having problems adjusting themselves to learning via online platforms. The abrupt change in learning modes has affected the efficiency and effectiveness of the learning process.

Forcing the situations to cause deterioration in students' academic performance, facing learning loss and the worst part of this is the declined psychological health among the students (Eberle & Hobrecht, 2021; El-Sakran et al., 2022). The complex interaction between mental, social, emotional, and spiritual dimensions of health makes up psychological health which sums up how an individual thinks, relates, feels, and exists in his or her daily life (Donatelle, 2017). During COVID-19, university students were left struck with the inability to cope and juggle between household responsibilities and their online learning activities, emphasizing how this may act as one of the contributing factors to the prevalence of moderate to severe depression, stress and anxiety among students in Shah Alam, Malaysia with 53.9%, 44.6% and 66.2% respectively (Wong et al., 2023). It was reported by Bahar Moni et al. (2021) that, the general Malaysian population possessed a higher psychological distress level, notably among those who were financially impacted by the pandemic. In contrast, as cited by Che Rahimi et al. (2021), it was previously reported in 13 systematic review articles that

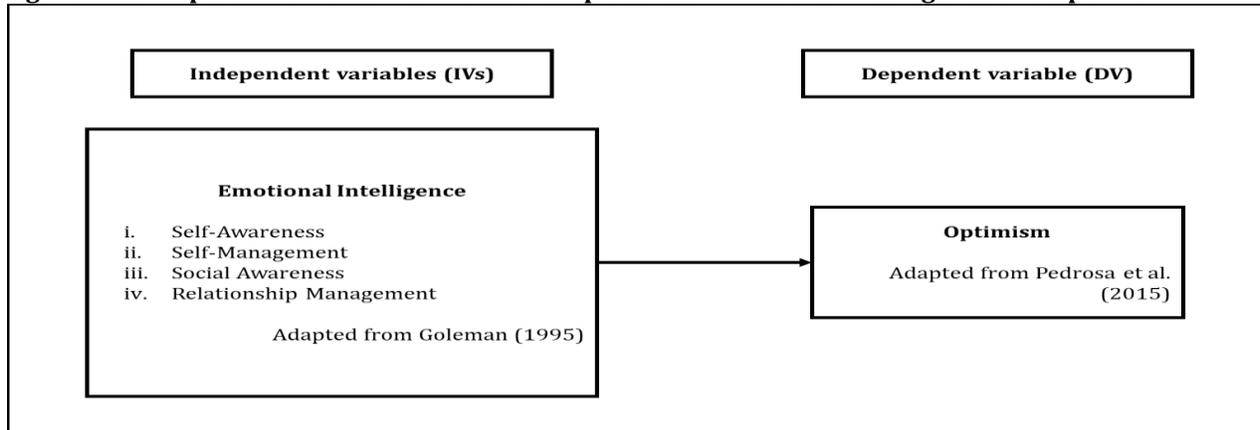
Malaysian students were also reported to have a 56% prevalence rate of psychological distress.

Almost doubled the prevalence of the general population with 29%. Additionally, 59.29%, 65%, and 67.21% of private university students have been reported to be having symptoms of stress, depression, and anxiety during the Malaysia lockdown period, MCO (Faez et al., 2020). Therefore, it is crucial to identify how these students feel about learning virtually and whether their ability to be consistently positive about everything can make up for the distress caused by the pandemic. Traditionally, optimism can be defined as the general expectation that an individual will experience and obtain good outcomes in the future (Scheier & Carver, 1985). Students who can be optimistic about the situation can cope with the difficulties that they face during online learning. This was supported by Zhihao and Mustapha (2021), who asserted that students with good optimism may always believe and expect good outcomes from the learning process and can greatly adapt and positively explain any negative consequences that occur. A study by Gómez Molinero et al. (2018), found that optimism is a protective factor that enhances students' resilience level in reducing the psychological distress caused by their life transformation. Apart from optimism, emotional intelligence may also come into the picture as one of the aids that may help university students to be resilient in coping with the hassle of online learning.

Stress and anxiety caused by virtual learning are commonly linked to students' emotions as these will occur when they have lost their interest in the learning activities that they used to enjoy doing. According to Hamdzah et al. (2016), emotional intelligence is one of the major contributing factors to perseverance in life as well as professional and personal success. Emotional intelligence can be referred to as an individual's mental ability to understand, perceive, and assess own and others' emotions which will enable the individual to manage, regulate, and apply those emotions (Mayer et al., 2016). In parallel to Goleman (1998), emotional intelligence can be defined as an array of non-cognitive capabilities, competencies, and skills that may influence the individual's ability to successfully cope with the demands and pressures from the environment. There are five main components of emotional intelligence, formulated by Daniel Goleman which was later reduced to four components self-awareness, self-management, social awareness, and relationship management (Goleman, 1998). This emotional intelligence was found to positively influence the mental health adjustment of students in their education which will be beneficial for their career development in the future (Mohamed et al., 2022). This was further supported by Tang and He (2023), who have found that students' learning motivation can be positively predicted by their emotional intelligence.

Despite many studies conducted examining the effects of emotional intelligence and optimism on students' learning, limited research is found in identifying the relationship between emotional intelligence and optimism especially among adolescents (Tejada-Gallardo et al., 2022). It was further revealed that adolescents' lives, optimism and friendship quality can be predicted by their emotional intelligence, reflecting the moderate positive relationship between emotional intelligence and optimism (Wang et al., 2022). Interchangeably, previous studies have suggested a reverse finding where optimistic students were also the ones with high self-esteem and emotional intelligence (Checa-Domene et al., 2022). Hence, three objectives were formulated for this research which were (1) To compare the level of emotional intelligence and optimism among public university students based on their gender; (2) To examine the relationship between emotional intelligence and optimism among public university students in Perak, Malaysia; and (3) To identify the strongest predictor among emotional intelligence components towards university students' optimism. Overall, this article was structured into five main headings as follows: (i) Introduction and Background; (ii) Methodology; (iii) Results; (iv) Discussion; and (v) Conclusion and Recommendations.

Figure 1: Conceptual Framework on Relationship between Emotional Intelligence and Optimism



By the literature review, seven research hypotheses have been articulated to achieve this study's objectives:

- H₁: Male students have higher emotional intelligence levels as compared to female students.
- H₂: Male students are highly optimistic as compared to female students.
- H₃: Emotional intelligence is significantly related to optimism among public university students in Perak.
- H_{3a}: Self-awareness is significantly related to optimism among public university students in Perak.
- H_{3b}: Self-management is significantly related to optimism among public university students in Perak.
- H_{3c}: Social awareness is significantly related to optimism among public university students in Perak.
- H_{3d}: Relationship management is significantly related to optimism among public university students in Perak.

2. Methodology

This study has adopted the cross-sectional research design as it would enable the measurement of the relationship between respective variables in a defined population (Wang & Cheng, 2020). This was in line with the main objectives of this study which aimed to examine the relationships between each component of emotional intelligence (self-awareness, self-management, social awareness and relationship management) towards optimism among public university students in Perak, Malaysia. Moreover, the researchers have applied the convenience sampling technique to get the minimum required sample size of 384 students. Nonetheless, the study managed to get a good response rate whereby the data collection passed the minimum number and courageously achieved 441 samples from the university students. In brief, the samples of this study can be considered sufficiently good, reflecting the fulfillment of the criteria for requiring 50 to 100 samples to enable the study's advancement to a simple regression analysis (Hair et al., 2018).

Even though convenience sampling is a non-probability technique whereby it was commonly known for being lack of subjectivity, it did serve the researchers with less cost, greater speed and simpler than any other sampling technique (Stratton, 2021). This technique was especially helpful because this study was conducted during MCO which restricted the movement of the researchers to physically collect the data from the respondents. Besides, this study has used a set of questionnaires as the data collection instrument which comprised three sections, Section A: Demographic details, Section B: Emotional Intelligence and Section C: Optimism. This questionnaire was adapted from the Optimism Scale questionnaire (Coelho et al., 2018; Pedrosa et al., 2015) as well as the Emotional Intelligence Questionnaire (Mustafa et al., 2020). By using SPSS version 28.0, the reliability of this questionnaire was confirmed as the researchers had conducted a pilot study with the findings of every variable to have Cronbach's Alpha value of 0.7 and above.

3. Results

Descriptive Analysis of Emotional Intelligence and Optimism: This study aimed to compare the level of emotional intelligence and optimism among public university students in Perak, Malaysia based on their genders which can be attained through a descriptive analysis. All items for emotional intelligence variable from each component of self-awareness, self-management, social awareness and relationship management

were computed and transformed into mean scores. These scores were then interpreted by using Best's Principle by Thaoprom (2004), into three categories low, moderate and high emotional intelligence. The same steps were conducted for the dependent variable whereby the mean scores were standardized into three categories weak, moderate and strong optimism. Low emotional intelligence and weak optimism were represented by the mean scores of 1.00 to 2.00, while moderate emotional intelligence and optimism were represented by the scores of 2.01 to 3.01. Lastly, the categories of high emotional intelligence and strong optimism were represented by scores of 3.02 to 4.00. Results from the analysis have presented a higher percentage of male students with high emotional intelligence as compared to female students (85.5%:75.7%), as referred to in Table 1. Concurrently, the same trend can be seen for the optimism variable as in Table 2 whereby it has shown that there was a small percentage of female students with weak optimism and a slightly lower percentage of strong optimism in comparison to male students (74.7%:85.5%). Hence, it can be concluded that male students have better levels of emotional intelligence and optimism as compared to female students, subsequently presuming the achievement of the first research objective and hypotheses H₁ and H₂ were supported.

Table 1: Comparisons on Level of Emotional Intelligence between Genders (n=441)

Gender(s)	Low (Mean score 1 – 2.00)*	Moderate (Mean score 2.01 – 3.01)*	High (Mean score 3.02 – 4)*
Male (n=145)	0 (0%)	21 (14.5%)	124 (85.5%)
Female (n=296)	0 (0%)	72 (24.3%)	224 (75.7%)

*Interpreted by using Best's Principle by Thaoprom (2004)

Table 2: Comparisons on Level of Optimism between Genders (n=441)

District(s)	Weak (Mean score 1- 2.00)*	Moderate (Mean score 2.01 – 3.01)*	Strong (Mean score 3.02 – 4)*
Male (n=145)	0 (0%)	21 (14.5%)	124 (85.5%)
Female (n=296)	7 (2.4%)	68 (23%)	221 (74.7%)

*Interpreted by using Best's Principle by Thaoprom (2004)

Correlational Analysis of Emotional Intelligence and Optimism: In determining the relationship between the independent and dependent variables of the study, a correlational analysis was conducted and tabulated in Table 3. The results were interpreted by using guidelines of strength and direction of coefficient values (r) by Cohen (Cohen, 1988). The findings have indicated three components of emotional intelligence encompassed self-awareness, self-management and relationship management to be positively, strongly related to optimism (r=.641, p<.01; r=.595, p<.01; r=.594, p<.01 respectively), leaving out social awareness as the only component with a moderate relationship with optimism (r=.483, p<.01). Additionally, the finding has shown that the overall emotional intelligence was positively, strongly associated with optimism (r=.675, p<.01). Thus, it can be concluded that the hypothesis of H₃, H_{3a}, H_{3b}, H_{3c} and H_{3d} were supported by the findings, consequently marking the achievement of the second research objective.

Table 3: Correlations between Emotional Intelligence and Optimism

Variables	Optimism	
Self-Awareness	Correlation coefficient	.641**
	Sig. (2-tailed)	<.001
Self-Management	Correlation coefficient	.595**
	Sig. (2-tailed)	<.001
Social Awareness	Correlation coefficient	.483**

	Sig. (2-tailed)	<.001
Relationship Management	Correlation coefficient	.594**
	Sig. (2-tailed)	<.001
Emotional Intelligence	Correlation coefficient	.675**
	Sig. (2-tailed)	<.001

Multiple Regression Analysis of Emotional Intelligence and Optimism: Furthermore, in identifying the strongest predictor of optimism among the components of emotional intelligence, a multiple regression analysis was conducted in which the results were tabulated in Table 4. Based on the findings, the study identified to have no collinearity problem as the values of variance inflation factors (VIF) were smaller than 10 and the values of tolerance were smaller than one. With an R^2 value of .483 and a significant F value of <.001, the analysis has indicated all components of emotional intelligence (self-awareness, self-management, social awareness, and relationship management) explained 48.3% of the variance (R^2) of optimism. Over and above, the analysis showed that the self-awareness component was the strongest predictor of optimism ($\beta=.375$, $p<.05$), followed by self-management and relationship management ($\beta=.204$, $p<.05$; $\beta=.194$, $p<.05$ respectively). Other than that, social awareness was the only component that was found to have no significant prediction over-optimism of public university students ($\beta=.014$, $p>.05$). Henceforth, this study has achieved its third research objective.

Table 4: Multiple Regression Analysis on Emotional Intelligence and Optimism

Independent variables	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	VIF
Self-Awareness	.375*	7.622	<.001	.491	2.036
Self-Management	.204*	3.737	<.001	.400	2.500
Social Awareness	.014	.281	.779	.509	1.964
Relationship Management	.194*	3.509	<.001	.389	2.574
R² value	.483				
F	101.727				
Sig. F Value	<.001				

4. Discussion

Level of Emotional Intelligence and Optimism: This study's findings were supported by previous studies in which various researchers have found that male students have higher emotional intelligence as compared to female students. This was defended by Ali et al. (2021); Newman and Smith (2014), where they have found that female students have lower emotional intelligence levels, in comparison to their male counterparts. Also, male students were highlighted to have better scores in overall emotional intelligence, motivating oneself and managing emotional components as compared to female students (Tripathi, 2016). Nonetheless, this finding may not restrictively cramp the idea that male students are better or superior to females as numerous previous studies have also found the contradicting results of female students have better emotional intelligence as compared to males (Fida et al., 2018; Kant, 2019; Patel, 2017). Some research may also discover that there were no differences between genders' emotional intelligence (Yang et al., 2021). Furthermore, the finding has also indicated that male students are more optimistic than female students and this has been highlighted by some studies which have found that women have less optimism than men, specifically related to the context of economics and finance (Bjuggren & Elert, 2019; Dawson, 2017; Jacobsen et al., 2014). In detail, according to Dawson (2023), men are more willing to take risks than women which has explained the parallel gender differences in being optimistic. This was similarly emphasized by the findings from Usán et al. (2022), optimism was found to be statistically significantly higher in males, rather than females.

The Relationship between Emotional Intelligence and Optimism: Similar findings from previous studies have shown a significant positive relationship between emotional intelligence and optimism and a negative association with pessimism (Aghazade et al., 2021; Kumcagiz et al., 2011; Molero et al., 2022). The relationship between these two variables has been under the spotlight due to the results' consistencies in implying how an individual being emotionally intelligent can influence him or her to be optimistic about every detail in life. According to Tejada-Gallardo et al. (2022), general emotional intelligence and emotional regulation may positively predict an individual's optimism and happiness. Additionally, Checa-Domene et al. (2022) stated that students with optimism have higher emotional intelligence and self-esteem levels. This has confirmed how optimism and emotional intelligence variables may commonly come together as a positive association which relatively supported this study's findings.

Strongest Predictor of Optimism: Undeniably, every study on emotional intelligence has found a positive relationship and influence on an individual's optimism. Even so, most of the studies used other theories to elaborate on the impact of the independent variables on optimism, rather than Goleman's. As for this study, it was found that self-awareness had become the strongest predictor of optimism, leaving behind the other three components. Self-awareness can be defined as the ability to understand and read own emotions while recognizing their impacts on others (Goleman et al., 2002). Simply, it is the understanding of what we feel and why the feelings are such way. About optimism, having a basic understanding of own feelings would enable the individual to translate the negatively pre-assumed feelings into something positive. The greater the awareness, the easier it would be for the individual to react to situations that revolve around him and others. As cited by McShane and Von Glinow (2021), individuals with better awareness can adapt their emotional responses to certain circumstances in which they will consciously use the awareness to engage in the situation appropriately.

5. Conclusion and Recommendations

In a nutshell, male students have a higher percentage of high emotional intelligence and strong optimism in comparison to female students. The results have also indicated positive relationships between each component of emotional intelligence and optimism, marking self-awareness, self-management and relationship management components with strong relationships as well as social awareness with moderate relationships. In addition, all components of emotional intelligence have explained almost 50% of optimism in which self-awareness was discovered to have the strongest predicting value of the dependent variable, followed by self-management and relationship management, leaving out social awareness as the sole component which was not significantly predicting the variable. All these findings were in check with previous studies whereby most of them found the association and impact of emotional intelligence towards optimism among students (Checa-Domene et al., 2022; Kumcagiz et al., 2011; Molero et al., 2022). Therefore, it is recommended for tertiary educational institutions to include the significance of optimism.

Emotional intelligence in the syllabus especially for compulsory university courses which are required to be taken by the students. Though it is arguable whether emotional intelligence can be taught and intervened to be improved (Geßler et al., 2021), it is worth every attempt to conduct every possible intervention to ensure the students can effectively improve their levels of optimism and emotional intelligence, subsequently to reduce the impact of the new norms of online learning. Current studies have found that emotional intelligence is indeed can be learned and improved, especially within the environment of business (Gilar-Corbi et al., 2019; Jenaabadi, 2014). Consensually, Serrat (2017) agreed that emotional intelligence can be learned and developed over time as emotional intelligence is shown to increase with age. Other than that, it is suggested that future researchers widen their study with other independent variables that may closely work with optimism such as social support and self-esteem. The researchers may also widen their population and samples to other Malaysian states, including Sabah and Sarawak to have better generalizability of results.

References

- Aghazade, S., Moheb, N. & Dolati, A. (2021). Investigating the Relationship between Optimism and Emotional Intelligence with Academic Self-Efficacy in Orumia High School Students. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(13), 7775–77485-77775–77485.
- Ali, A., Saleem, N. & Rahman, N. (2021). Emotional Intelligence of University Students: Gender Based Comparison. *Bulletin of Education and Research*, 43(1), 255-265.
- Bahar Moni, A. S., Abdullah, S., Bin Abdullah, M. F. I. L., Kabir, M. S., Alif, S. M., Sultana, F., Salehin, M., Islam, S. M. S., Cross, W. & Rahman, M. A. (2021). Psychological distress, fear and coping among Malaysians during the COVID-19 pandemic. *PLoS one*, 16(9), e0257304. <https://doi.org/https://doi.org/10.1371/journal.pone.0257304>
- Bjuggren, C. M. & Elert, N. (2019). Gender differences in optimism. *Applied Economics*, 51(47), 5160-5173.
- Che Rahimi, A., Bakar, R. S. & Mohd Yasin, M. A. (2021, Nov 10). Psychological Well-Being of Malaysian University Students during COVID-19 Pandemic: Do Religiosity and Religious Coping Matter? *Healthcare (Basel)*, 9(11). <https://doi.org/10.3390/healthcare9111535>
- Checa-Domene, L., Luque de la Rosa, A., Gavín-Chocano, Ó. & Torrado, J. J. (2022). Students at Risk: Self-Esteem, Optimism and Emotional Intelligence in Post-Pandemic Times? *International Journal of Environmental Research and Public Health*, 19(19), 12499.
- Coelho, G. L. H., Vilar, R., Hanel, P. H. P., Monteiro, R. P., Ribeiro, M. G. C. & Gouveia, V. V. (2018). Optimism scale: Evidence of psychometric validity in two countries and correlations with personality. *Personality and Individual Differences*, 134, 245-251. <https://doi.org/https://doi.org/10.1016/j.paid.2018.06.030>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd Ed.). Lawrence Earlbaum
- Dawson, C. (2017). The upside of pessimism – Biased beliefs and the paradox of the contented female worker. *Journal of Economic Behavior & Organization*, 135, 215-228. <https://doi.org/https://doi.org/10.1016/j.jebo.2017.02.004>
- Dawson, C. (2023). Gender differences in optimism, loss aversion, and attitudes towards risk. *British Journal of Psychology*, n/a(n/a). <https://doi.org/https://doi.org/10.1111/bjop.12668>
- Donatelle, R. (2017). *Access to Health* (15th ed.). Pearson Education.
- Eberle, J. & Hobrecht, J. (2021). The lonely struggle with autonomy: A case study of first-year university students' experiences during emergency online teaching. *Computers in Human Behavior*, 121, 106804.
- El-Sakran, A., Salman, R. & Alzaatreh, A. (2022). Impacts of emergency remote teaching on college students amid COVID-19 in the UAE. *International journal of environmental research and public health*, 19(5), 2979.
- Faez, M., Hadi, J., Abdalqader, M., Assem, H., Ads, H. O. & Ghazi, H. F. (2020). Impact of lockdown due to COVID-19 on mental health among students in a private university at Selangor. *European Journal of Molecular and Clinical Medicine*, 508-517.
- Fida, A., Ghaffar, A., Zaman, A. & Satti, A. N. (2018). Gender comparison of emotional intelligence of university students. *Journal of Education and Educational Development*, 5(1), 172-188.
- Geßler, S., Nezelek, J. B. & Schütz, A. (2021, 2021/07/04). Training emotional intelligence: Does training in basic emotional abilities help people to improve higher emotional abilities? *The Journal of Positive Psychology*, 16(4), 455-464. <https://doi.org/10.1080/17439760.2020.1738537>
- Gilar-Corbi, R., Pozo-Rico, T., Sánchez, B. & Castejón, J. L. (2019). Can emotional intelligence be improved? A randomized experimental study of a business-oriented EI training program for senior managers. *PLoS one*, 14(10), e0224254. <https://doi.org/10.1371/journal.pone.0224254>
- Goleman, D. (1998). *Working with emotional intelligence*. Bantam Books.
- Goleman, D., Boyatzis, R. & McKee, A. (2002). *Primal Leadership: Realizing the Importance of Emotional Intelligence*. Harvard Business School Press.
- Gómez Molinero, R., Zayas García, A., Ruiz González, P. & Guil, R. (2018). Optimism and resilience among university students.
- Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2018). *Multivariate Data Analysis* (8th ed.). Cengage Learning.
- Hamdzah, N. L. A., Hassan, S. N. S. & Hassan, R. (2016). Examining the level of emotional intelligence among semester one students in Universiti Teknologi Mara Pahang. *Journal of Human Capital Development*

- (JHCD), 9(1), 33-46.
- Jacobsen, B., Lee, J. B., Marquering, W. & Zhang, C. Y. (2014). Gender differences in optimism and asset allocation. *Journal of Economic Behavior & Organization*, 107, 630-651.
- Jenaabadi, H. (2014, 2014/02/21/). The Effect of Training Skills of Optimism on Fostering Emotional Intelligence of Males in Education & Improvement Center in Zahedan. *Procedia - Social and Behavioral Sciences*, 114, 191-196. <https://doi.org/https://doi.org/10.1016/j.sbspro.2013.12.683>
- Kamaludin, K. & Sundarasan, S. (2023). COVID-19 and online distance learning in Malaysia: A blessing or a curse? *Frontiers in Education*, 8, 1062219.
- Kant, R. (2019). Emotional intelligence: A study on university students. *Journal of Education and Learning (EduLearn)*, 13(4), 441-446.
- Kumcagiz, H., Celik, S. B., Yilmaz, M. & Eren, Z. (2011). The effects of emotional intelligence on optimism of university students. *Procedia-Social and Behavioral Sciences*, 30, 973-977.
- Mayer, J. D., Caruso, D. R. & Salovey, P. (2016). The ability model of emotional intelligence: *Principles and updates. Emotion review*, 8(4), 290-300.
- McShane, S. L. & Von Glinow, M. A. Y. (2021). *Organizational Behavior*. McGraw-Hill Education. <https://books.google.com.my/books?id=B6lCzQEACAAJ>
- Mohamed, N. F., Govindasamy, P., Rahmatullah, B. & Purnama, S. (2022). Emotional Intelligence Online Learning and its Impact on University Students' Mental Health: A Quasi-Experimental Investigation. *Pertanika Journal of Social Sciences & Humanities*, 30(2). <https://doi.org/https://doi.org/10.47836/pjssh.30.2.13>
- Molero, D., Gavín-Chocano, Ó., Vargas-Cuevas, E. & García-Martínez, I. (2022). Relationship between Emotional Intelligence and Optimism According to Gender and Social Context (Urban vs. Rural). *Social Sciences*, 11(7), 268.
- Mustafa, M. Z. B., Nordin, M. B., Razzaq, A. R. B. A. & bin Ibrahim, B. (2020). Vocational College Teachers in Malaysia: Emotional Intelligence. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 5099-5106.
- Newman, M., & Smith, K. H. (2014). Emotional intelligence and emotional labor: A comparison study using the emotional capital report (ECR). *Education and Society*, 32(1), 41-62.
- Patel, S. K. (2017). Emotional intelligence of college-level students about their gender. *The International Journal of Indian Psychology*, 4(2), 2349-3429.
- Pedrosa, I., Celis-Atenas, K., Suárez-Álvarez, J., García-Cueto, E. & Muñoz, J. (2015). Cuestionario para la evaluación del optimismo: Fiabilidad y evidencias de validez. *Terapia psicológica*, 33(2), 127-138.
- Scheier, M. F. & Carver, C. S. (1985). Optimism, coping, and health: assessment and implications of generalized outcome expectancies. *Health psychology*, 4(3), 219.
- Serrat, O. (2017). Understanding and Developing Emotional Intelligence. In *Knowledge Solutions: Tools, Methods, and Approaches to Drive Organizational Performance* (pp. 329-339). Springer Singapore. https://doi.org/10.1007/978-981-10-0983-9_37
- Stratton, S. J. (2021, Aug). Population Research: Convenience Sampling Strategies. *Prehosp Disaster Med*, 36(4), 373-374. <https://doi.org/10.1017/s1049023x21000649>
- Tang, Y. & He, W. (2023). Relationship between emotional intelligence and learning motivation among college students during the COVID-19 pandemic: A serial mediation model. *Front Psychol*, 14, 1109569. <https://doi.org/10.3389/fpsyg.2023.1109569>
- Tejada-Gallardo, C., Blasco-Belled, A., Torrelles-Nadal, C. & Alsinet, C. (2022). How does emotional intelligence predict happiness, optimism, and pessimism in adolescence? Investigating the relationship from the bifactor model. *Current Psychology*, 41(8), 5470-5480.
- Thaoprom, P. (2004). Relationship Between Quality of Work Life and Job Performance for Police Office-Crime Prevention and Suppression Division: Case Study Thonglor Metropolitan Mahidol University].
- Tripathi, M. (2016). Emotional Intelligence and Gender Differences. *Journal Global Values*, 7(2), 1-5.
- Usán, P., Salavera, C., & Quílez-Robres, A. (2022). Self-Efficacy, Optimism, and Academic Performance as Psychoeducational Variables: Mediation Approach in Students. *Children (Basel)*, 9(3). <https://doi.org/10.3390/children9030420>
- Wang, X. & Cheng, Z. (2020). Cross-sectional studies: *strengths, weaknesses, and recommendations. CHEST*, 158(1), S65-S71. <https://doi.org/https://doi.org/10.1016/j.chest.2020.03.012>
- Wang, X., Lu, X., Hu, T., Xue, S., Xu, W. & Tang, W. (2022). Optimism and friendship quality as mediators between trait emotional intelligence and life satisfaction in Chinese adolescents: A two-wave

- longitudinal study. *Current Psychology*. <https://doi.org/10.1007/s12144-022-03931-0>
- Wong, S. S., Wong, C. C., Ng, K. W., Bostanudin, M. F. & Tan, S. F. (2023). Depression, anxiety, and stress among university students in Selangor, Malaysia during COVID-19 pandemics and their associated factors. *PloS one*, 18(1), e0280680. <https://doi.org/https://doi.org/10.1371/journal.pone.0280680>
- Yang, R., Díaz, V. G. & Hsu, C. H. (2021). Use of emotional intelligence to promote innovation among employees in the work environment through qualitative and quantitative analysis. *Aggression and Violent Behavior*, 101589.
- Zhihao, D. & Mustapha, S. M. (2021). The Relationship between Online Teacher-Student Interaction and Online Academic Performance: The Mediating Effect of Academic Optimism. *International Journal of Infrastructure Research and Management*, 9(2), 1-10.