



Psychological Capital and Gratitude as Correlate to Mental Health among Undergraduate College Students: A Literature Review

Poonam Tewari¹, Krishan Kumar Panchal^{2}, Sudhir Kumar Singh³*

¹ Assistant Professor, Department of Psychology, Raja Balwant Singh College, Agra (U.P.), India, ² Ph. D. Scholar, Dr. Bhimrao Ambedkar University, Agra (U.P.), India, ³ Professor, Department of Psychology, Raja Balwant Singh College, Agra (U.P.), India

Email: krishan6838@gmail.com

DOI: <https://doi.org/10.55248/gengpi.5.0524.1327>

ABSTRACT:

This research paper explores the intricate relationship between psychological factors, such as Psychological Capital (PsyCap) and gratitude, and mental health outcomes among college students and workers. Drawing from a comprehensive review of 29 relevant studies spanning from 2013 to 2024, the paper synthesizes findings that underscore the pivotal role of PsyCap and gratitude in promoting resilience and well-being across diverse populations. The results highlight the positive impacts of PsyCap on various aspects of mental health, including its association with perceived social support, mindful learning, motivation for achievement, and overall positive mental health outcomes among college students. Additionally, gratitude emerges as a significant contributor to academic adjustment, well-being, and psychosocial functioning among college students and workers. However, the paper also acknowledges the challenges posed by factors associated with poor mental health, such as childhood trauma, LGBTQ identity, and autism, emphasizing the need for targeted interventions and support systems to address mental health disparities. Overall, the findings underscore the importance of prioritizing mental health support and implementing evidence-based interventions informed by PsyCap and gratitude principles to foster resilience, promote well-being, and reduce mental health disparities across diverse populations and among college students.

Keywords: Psychological Capital (PsyCap), Gratitude, Mental Health.

Introduction:

During the college years, students encounter a multitude of stressors and challenges that can significantly impact their mental health. It is of utmost importance to address mental health issues in this population to promote academic success, personal growth, and overall well-being. When students face psychological difficulties, it can hinder their ability to fully participate in their classrooms and educational experiences. Feelings of despair and exhaustion can lead to a lack of motivation and interest in learning. Additionally, problems with functioning may affect their ability to concentrate and perform well academically.

On the other hand, students with good mental health are better equipped to thrive in higher education. They are more likely to stay committed to their studies, perform well academically, and find joy in their educational pursuits. Positive mental health enables students to actively participate in activities they find interesting, fostering a sense of fulfilment and purpose. Moreover, they possess an optimistic outlook about their future, which bolsters their resilience in the face of challenges.

Recognizing the importance of mental health among college students is vital because they are the foundation of our future society. By prioritizing their well-being and providing the necessary support, colleges and universities can create an environment where students can flourish academically and personally. Addressing mental health issues not only benefits the individual students but also contributes to a healthier and more prosperous society in the long run.

Psychological Capital (PsyCap)

Psychological Capital is a state composed of four dimensions: Hope, Efficacy, Resilience and Optimism (Luthans et al., 2007). It is considered a core psychological element that goes beyond human and social capital, as it represents psychological resources that promote personal growth and performance improvement. Numerous studies have begun to focus on the relationship between Psychological Capital and students' learning performance.

Luthans et al. (2015) suggest that Psychological Capital fosters optimal individual development, empowering individuals with the confidence to make decisions and put in the necessary effort to achieve academic success (self-efficacy). It also enables them to persevere towards their academic goals or adapt and redirect their efforts when needed (hope). Additionally, Psychological Capital encourages individuals to hold positive attributions about current

and future academic events (optimism) and equips them with the ability to recover from overwhelming or adverse academic situations, emerging stronger and more resilient (resilience). Ultimately, these factors play a crucial role in attaining academic achievements.

According to Luthans et al. (2007), scientific literature demonstrates that psychological capital serves as a strong predictor of overall performance and satisfaction. However, its predictive power diminishes when evaluating individual dimensions separately. In other words, when assessing psychological capital holistically, it emerges as a significant factor in determining performance and satisfaction levels. On the contrary, when examining its impact on specific dimensions in isolation, the predictive ability weakens

Gratitude

Gratitude plays a pivotal role in the social and emotional lives of human beings. Recent studies have emphasized its significance in both experiencing and expressing gratitude as a fundamental aspect of moral behavior.

Gratitude is the feeling of gratefulness when someone does something good for another person. Gratitude plays an essential role in colleges, as nowadays students often lack gratitude towards their professors. Disrespect towards professors in the classroom and outside can have a negative impact on students' mental health.

The term gratitude originates from the Latin word "gratia," which conveys the concept of thankfulness, appreciation, and displaying kindness in response to respect. According to Pruyser (1976, p. 69), gratitude is derived from a root that signifies the act of showing kindness, generosity, gifting, and the beauty of giving and receiving without expecting anything in return.

Gratitude originates from a cognitive process comprising two essential steps. The first step involves the individual recognizing that they have received a positive outcome. The second step encompasses the individual acknowledging that this positive result originates from an external source (R. A. Emmons and M. E. McCullough, 2003).

D.V. Grimaldy and H.C. Haryanto (2020) have identified two key aspects that characterize individual gratitude. The first factor involves appreciating continuous life experiences. This type of gratitude stems from everyday events, like waking up in the morning, having loving parents, cherishing friendships, and more. The second factor revolves around appreciating all aspects of life, encompassing not just other individuals, but also the universe and a higher power. This broader perspective of gratitude encompasses all facets of life and existence.

Mental Health

Mental health is an integral and crucial aspect of overall well-being, constituting a level of psychological wellness or the absence of mental illness (as per the WHO). It represents a state of being in which individuals recognize their own capabilities, effectively cope with life's regular stressors, maintain productivity in their work, and contribute positively to their communities. The importance of mental health extends to both our collective and individual capacities as human beings, influencing our cognitive processes, emotional responses, social interactions, economic stability, and overall enjoyment of life. The level of mental health at any given time is influenced by a combination of social, psychological, and biological factors.

According to the WHO, specific determinants are associated with poor mental health, including: "rapid social change, stressful work conditions, gender discrimination, social exclusion, unhealthy lifestyle, risks of violence and physical ill-health, and human rights violations."

The transition from being a high school student to a university student is often perceived as stressful and highly challenging. As a result, university students worldwide face a significant risk of developing mental health disorders (Corley L, 2013).

Objective

The main objective of this study is to conduct an extensive review of the literature and examine the overall impact of psychological capital and gratitude on the mental health of college students.

Methodology:

This is a review-based study. In order to achieve the proposed objectives, we searched through well-known databases (ACM Digital Library, Directory of Open Access Journals (DOAJ), EBSCOhost, Google Scholar, J-Gate, ResearchGate, Scopus, Semantic Scholar) and scholarly journals of Psychology and Social Science to find studies about predictors of mental health. Keywords used to carry out the research included Psychological Capital, Gratitude, Mental Health, College Student Mental Health, and other similar terms. We found a number of pieces of evidence in the literature. However, to limit our study, we used the following selection criteria:

- ❖ Our literature review spanned over 11 years, i.e., 2013-2024.
- ❖ We included only research papers, meaning that all other forms of work such as theses, conference papers, working papers, books, book reviews, etc., were excluded.
- ❖ We particularly focused on research papers providing empirical evidence, qualitative and theoretical basis on psychological capital, gratitude, and mental health.

We followed a set process of review, which included:

- ❖ Checking the keywords and titles of articles.
- ❖ Reading the abstracts and research methodology sections of the articles.
- ❖ Going through the reference sections of all the shortlisted articles to ensure that we did not miss any relevant piece of work.
- ❖ Repeating the same steps until repetition occurred.

We found 29 relevant studies and included all of them in our analysis.

Literature Review:

Review Related to Psychological Capital (PsyCap)

Psychological Capital (PsyCap)

Khan, A. et al. (2024) conducted a study at Huazhong University of Science and Technology, exploring the correlation between PsyCap and MH among 443 undergraduate graduate students. PLS-SEM results showed significant positive impacts of PsyCap ($\beta = 0.815$) and PSS ($\beta = 0.405$) on MH. Notably, PSS emerged as a significant mediator ($b = 0.080$) in enhancing students' MH.

Lin (2020) conducted a study on the contribution of psychological capital (PsyCap) and mindful learning to English learning engagement among Taiwanese university students. The findings revealed that PsyCap had a positive influence on mindful learning, which, in turn, positively affected English learning engagement. Additionally, mindful learning fully mediated the relationship between PsyCap and English learning engagement.

Herdem (2019) conducted a study examining the influence of psychological capital on individual instrument motivation among undergraduate students. The regression analysis revealed a significant and positive relationship between resilience and motivation for achievement.

Prasath and Bhat (2018) conducted a cross-sectional, exploratory study examining the relationship between mental health levels (flourishing, moderate mental health, languishing) in college students and their psychological capital (PsyCap). Using a survey method, the results indicated that fostering positive psychological strengths (HERO: hope, effectiveness, resilience, and optimism) significantly enhanced positive mental health.

Prasath and Bhat (2018) conducted a study focusing on the shift from a deficit-based approach to a strengths-based approach in behavioral health treatment. The study aimed to explore the relationship between levels of mental health (flourishing, moderate mental health, and languishing) and psychological capital (PsyCap) in college students. The findings revealed that developing positive psychological strengths such as hope, efficacy, resilience, and optimism (HERO) significantly increased positive mental health among college students.

Nafees and Jahan (2017) conducted a study focusing on the influence of Psychological Capital (PsyCap) on the mental well-being of medical students pursuing either MBBS or BUMS at Aligarh Muslim University, Aligarh. The findings indicated that students with higher levels of PsyCap demonstrated greater resilience and were better equipped to handle adverse situations, perceiving the academic environment as less distressing compared to their peers with lower PsyCap.

Review Related to Gratitude

Gratitude

Philipose et al. (2023) explored the relationship between gratitude and academic adjustment among college students. However, the directionality of the relationship between gratitude and academic adjustment remains unclear. The researchers collected data from 83 college students using the Gratitude Questionnaire-6 (GQ-6) and College Adjustment Scale. The results of the correlational analysis suggested that gratitude contributes to academic adjustment, and achieving academic adjustment can foster the development of gratitude among college students.

Tolcher et al. (2022) conducted a study to explore the effects of three gratitude interventions on the well-being of college students. The participants were randomly assigned to gratitude journaling, reflection, app prompted reflection, or a control group. The results indicated that all three gratitude interventions led to improvements in well-being, while the control group did not exhibit any changes. Notably, gratitude journaling had the most significant positive impact

In a study conducted by Kaniuka et al. (2021) on 913 undergraduate students, gratitude was found to be associated with improved psychosocial well-being and reduced suicide risk.

Yaneta and Suparman (2021) conducted a study on the role of gratitude in the well-being of college students working on their undergraduate thesis. The findings indicated that 70.4% of the participants were women, 62.4% were 21 years old, and 83% were in their 7th semester. A simple linear regression test revealed that gratitude contributed significantly to well-being, explaining 38.4% of the variance ($p = 0.00 < 0.05$). Further analysis using multiple linear regression showed that the appreciation of constant life experiences had a greater impact on positive emotions, engagement, positive relationships, meaning, accomplishment, health, and overall well-being. Conversely, the appreciation of all aspects and parts of life had a stronger association with negative emotions and loneliness.

The study conducted by Komase et al. (2021) aimed to assess the effectiveness of gratitude interventions on the mental health and well-being of workers. Through a systematic search, the researchers identified nine relevant studies. Gratitude list interventions were commonly employed in these studies and were found to lead to significant improvements in perceived stress and depression.

In a study conducted by Amin et al. (2018), the researchers aimed to explore the relationship between self-esteem and gratitude among college students. The findings of the study indicated that there was no significant relationship between self-esteem and gratitude among the participants. Additionally, the researchers examined gender differences through a t-test and found no significant difference in self-esteem and gratitude between male and female students.

Review Related to Mental Health

Mental Health

The systematic review aimed to identify factors associated with the mental health of students in higher education. The review included 31 observational studies conducted in the UK within the last decade. Factors associated with an increased risk of poor mental health included experiences of childhood trauma, LGBTQ identity, and autism. On the other hand, factors promoting mental wellbeing included having strong and supportive social networks and being prepared to adjust to the changes associated with higher education. Lack of engagement in learning and leisure activities, as well as poor mental health literacy, were found to be associated with poor mental health. The findings provide a basis for developing strategies and interventions to prevent poor mental health and provide targeted support to students at increased risk (Campbell et al., 2022).

The study examined mental health trends and help-seeking behaviors among college students from diverse racial and ethnic backgrounds. Findings revealed that over 60% of students met criteria for mental health problems in the 2020-2021 academic years, showing a significant increase compared to 2013. Mental health worsened for all groups, with American Indian/Alaskan Native students experiencing the largest increases. Students of color had lower rates of mental health service utilization. The study highlights the need for addressing mental health disparities and implementing effective campus mental health programs to reduce inequalities (Sarah Ketchen Lipson et al., 2022).

Finch, J. et al. (2020) examined that PsyCap-HERO constructs and associations with both mental health symptoms and subjective wellbeing in school-aged children and adolescents (aged 9–14 years). Significant associations between each HERO construct and flourishing, anxiety and depression symptoms in the expected direction were found, and importantly, the combination of HERO constructs was shown to be a stronger predictor of increased levels of student flourishing, and decreased levels of anxiety and depression symptoms, than individual HERO constructs.

Ronny Bruffaerts et al. (2018) explored the association between mental health problems and academic functioning among college students. The study concluded that mental health problems are prevalent among college freshmen and are strongly associated with poorer academic functioning. Further research is needed to determine if this association is causal and whether interventions targeting mental health can enhance academic performance.

Priscilla and Christine (2018) examined relationships and predictions that exist between levels of mental health in college students, i.e., flourishing, moderate mental health, and languishing, and psychological capital (PsyCap). Results indicated that developing positive psychological strengths such as hope, efficacy, resilience, and optimism (acronym HERO) within college students significantly increased their positive mental health.

The authors Pedrelli et al. (2015) conducted a study addressing the unique mental health challenges faced by college students. The study concluded that by understanding the specific developmental stage and environment of college students, practitioners can better support this population in managing their mental health.

Results and Discussion:

The collection of studies presented encompasses a diverse range of topics, all centering around the intricate interplay between psychological factors and mental health outcomes among different populations, particularly college students and workers. These studies collectively underscore the pivotal role of Psychological Capital (PsyCap) and gratitude in promoting positive mental health outcomes across various contexts. From enhancing academic adjustment and well-being among college students to mitigating workplace stress and depression among workers, the findings highlight the transformative potential of interventions targeting PsyCap and gratitude. Moreover, the identification of factors associated with poor mental health, such as childhood trauma and LGBTQ identity, underscores the importance of targeted interventions and support systems to address mental health disparities and promote equity in access to mental health services. Additionally, the studies shed light on the evolving trends in mental health, emphasizing the need for ongoing research and intervention efforts to adapt to the changing landscape of mental health challenges, particularly among college students of diverse racial and ethnic backgrounds. Overall, these findings provide valuable insights for policymakers, educators, and mental health practitioners to develop tailored strategies and interventions aimed at fostering resilience, promoting well-being, and reducing mental health disparities across various populations.

Additionally, the reviews highlight the mental health challenges faced by college students and underscores the importance of Psychological Capital and Gratitude in promoting resilience and well-being. Psychological Capital, characterized by traits like optimism and resilience, acts as a shield against stressors, while gratitude practices foster a positive outlook and emotional balance. Research consistently shows the positive impact of both Psychological Capital and Gratitude on mental health outcomes, suggesting their complementary roles in promoting student well-being.

Conclusion:

1. Positive impacts of PsyCap and Perceived Social Support (PSS) on mental health (MH), with PSS acting as a significant mediator, enhancing students' MH.
2. PsyCap positively influenced mindful learning, which in turn positively affected English learning engagement, with mindful learning fully mediating this relationship.
3. A significant and positive relationship between resilience, a component of PsyCap, and motivation for achievement among undergraduate students.
4. Fostering positive psychological strengths, such as hope, effectiveness, resilience, and optimism (HERO), significantly enhanced positive mental health among college students.
5. Higher levels of PsyCap among medical students were associated with greater resilience and decreased perception of academic distress, indicating its positive influence on mental well-being.
6. Gratitude contributes to academic adjustment among college students, and achieving academic adjustment can foster gratitude development.
7. Gratitude interventions, particularly journaling, significantly improve college students' well-being.
8. Gratitude is associated with enhanced psychosocial well-being and reduced suicide risk among undergraduate students.
9. Gratitude significantly contributes to the well-being of college students, with specific aspects influencing various dimensions of emotional and social well-being.
10. The effectiveness of gratitude interventions in improving workers' mental health, particularly in reducing perceived stress and depression.
11. No significant relationship between self-esteem and gratitude among college students, regardless of gender differences.
12. Factors associated with poor mental health in UK higher education, including childhood trauma, LGBTQ identity, and autism, emphasizing the need for targeted interventions.
13. Increasing rates of mental health problems among college students, particularly among students of color, underscore the necessity for equitable access to mental health services and campus programs.
14. The significance of Psychological Capital (PsyCap) in promoting mental well-being among school-aged children and adolescents, suggesting the combined HERO constructs as strong predictors of flourishing and reduced anxiety and depression symptoms.
15. The prevalence of mental health issues among college freshmen and their impact on academic functioning, urging further investigation into potential causal relationships and the efficacy of mental health interventions.
16. The role of PsyCap in enhancing positive mental health outcomes among college students, emphasizing the importance of fostering hope, efficacy, resilience, and optimism (HERO).
17. The importance of understanding the unique mental health challenges faced by college students and tailoring interventions to their developmental stage and environment to provide effective support.

ACKNOWLEDGEMENT

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

References:

1. Amin A, Khalid Z, Ashraf MZ, *et al.* (2018). Gratitude & self esteem among college students. *Journal of Psychology & Clinical Psychiatry*, 9(4), 335–339. DOI: 10.15406/jpcpy.2018.09.00546
2. Anas, Mohammad & Husain, Akbar & Khan, Shah. (2019). *Manual of Gratitude*. Delhi: PsychoMatrix.
3. Blanco, C., Okuda, M., Wright, C., Hasin, D. S., Grant, B. F., Liu, S. M., & Olfson, M. (2008). Mental health of college students and their non-college-attending peers: results from the National Epidemiologic Study on Alcohol and Related Conditions. *Archives of general psychiatry*, 65(12), 1429–1437. <https://doi.org/10.1001/archpsyc.65.12.1429>
4. Campbell, F., Blank, L., Cantrell, A. *et al.* (2022). Factors that influence mental health of university and college students in the UK: a systematic review. *BMC Public Health*, 22, 1778.
5. Corley L. (2013). Prevalence of mental health issues among college students: How do advisers equip themselves? . *The Mentor an Academic Advising Journal*; Available from <http://dus.psu.edu/mentor/2013/08/mental-health-college-students/>

6. D. V. Grimaldy & H. C. Haryanto (2020). Adaptation of gratitude questionnaire-6 (gq - 6) in Indonesian context, *J. Psikol.*, 47(1), 18–29. doi: 10.22146/jpsi.39608.
7. Finch, J., Farrell, L.J. & Waters, A.M. (2020). Searching for the HERO in Youth: Does Psychological Capital (PsyCap) Predict Mental Health Symptoms and Subjective Wellbeing in Australian School-Aged Children and Adolescents?. *Child Psychiatry Hum Dev* 51, 1025–1036. <https://doi.org/10.1007/s10578-020-01023-3>
8. Herdem, Dilek. (2019). The Effect of Psychological Capital on Motivation for Individual Instrument: A Study on University Students. *Universal Journal of Educational Research*, 7, 1402-1413. doi:10.13189/ujer.2019.070608.
9. Kaniuka, A. R., KelliherRabon, J., Brooks, B. D., Sirois, F., Kleiman, E., & Hirsch, J. K. (2021). Gratitude and suicide risk among college students: Substantiating the protective benefits of being thankful. *Journal of American College health*, 69(6), 660-667. <https://doi.org/10.1080/07448481.2019.1705838>
10. Khan, A., Zeb, I., Zhang, Y., Fazal, S., & Ding, J. (2024). Relationship between psychological capital and mental health at higher education: Role of perceived social support as a mediator. *Heliyon*, 10(8), e29472. <https://doi.org/10.1016/j.heliyon.2024.e29472>
11. Khan, Shah & Naik, Abdul. (2019). *Manual for Psychological Capital*. Delhi: Manas Psycho Home, Delhi.
12. Komase, Y., Watanabe, K., Hori, D., Nozawa, K., Hidaka, Y., Iida, M., Imamura, K., & Kawakami, N. (2021). Effects of gratitude intervention on mental health and well-being among workers: A systematic review. *Journal of occupational health*, 63(1), e12290. <https://doi.org/10.1002/1348-9585.12290>
13. Kumar, P. (1992). *Mental health check-list*. GUJARAT: Department of Psychology, Sardar Patel University, Vallabh Vidyanagar.
14. Lin, Yi-Ti. (2020). The Interrelationship Among Psychological Capital, Mindful Learning, and English Learning Engagement of University Students in Taiwan. *SAGE Open*. 10. 215824402090160. doi:10.1177/2158244020901603.
15. Luthans F., Avolio B.J., Avey J.B., & Norman S.M. (2007). Positive psychological capital: measurement and relationship with performance and satisfaction. *Person. Psychol.* 60(3), 541–572.
16. Luthans F., Youssef-Morgan C.M., Avolio B.J. (2015). *Psychological Capital and beyond*. Oxford University Press.
17. Luthans, Fred & Youssef-Morgan, Carolyn & Avolio, Bruce. (2007). *Psychological Capital: Developing the Human Competitive Edge*. New York: Oxford University Press. doi:10.1093/acprof:oso/9780195187526.001.0001.
18. Nafees, Nida & Jahan, Musaddiq. (2017). Psychological Capital (PsyCap) and Mental Well-being among Medical Students. *The International Journal of Indian Psychology*, 10, 2348-5396. doi:10.25215/0403.087.
19. Pedrelli, P., Nyer, M., Yeung, A., Zulauf, C., & Wilens, T. (2015). College Students: Mental Health Problems and Treatment Considerations. *Academic psychiatry: the journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry*, 39(5), 503–511. <https://doi.org/10.1007/s40596-014-0205-9>
20. Peterson, C., & Seligman, M.E.P. (2004). *Character strengths and virtues: A handbook and classification*. New York: Oxford University Press.
21. Philipose, J. V., Choubisa, R., & Dubey, A. (2023). Academic Adjustment and Gratitude in College Students: A First-Hand Evidence from a Psychological Perspective. *Handbook of Evidence Based Management Practices in business*, 246. England, UK: Routledge. doi: 10.4324/9781003415725-32
22. Prasath, Priscilla & Bhat, Christine. (2018). Predicting the mental health of college students with psychological capital. *Journal of Mental Health*, 27, 1-9. doi: 10.1080/09638237.2018.1469738.
23. Priscilla Rose Selvaraj & Christine Suniti Bhat (2018). Predicting the mental health of college students with psychological capital, *Journal of Mental Health*, 27(3), 279-287. DOI: 10.1080/09638237.2018.1469738.
24. Pruyser, P.W. (1976). *The minister as diagnostician: Personal problem in pastoral perspective*. Philadelphia: Westminster Press.
25. R. A. Emmons & M. E. McCullough (2003). Counting blessings versus burdens: An experimental investigation of gratitude and subjective well-being in daily life, *J. Pers. Soc. Psychol.*, 84(2), 377–389.
26. Ronny Bruffaerts, Philippe Mortier, Glenn Kiekens, Randy P. Auerbach, Pim Cuijpers, Koen Demyttenaere, Jennifer G. Green, Matthew K. Nock, Ronald C. Kessler (2018). Mental health problems in college freshmen: Prevalence and academic functioning, *Journal of Affective Disorders*, 225, 97-103. <https://doi.org/10.1016/j.jad.2017.07.044>.
27. Sarah Ketchen Lipson, Sasha Zhou, Sara Abelson, Justin Heinze, Matthew Jirsa, Jasmine Morigney, Akilah Patterson, Meghna Singh, Daniel Eisenberg (2022). Trends in college student mental health and help-seeking by race/ethnicity: Findings from the national healthy minds study 2013-2021, *Journal of Affective Disorders*, 306, 138-147.

-
28. Tolcher K, Cauble M, Downs A. (2022). Evaluating the effects of gratitude interventions on college student well-being. *Journal of American College Health*, 27, 1-5. doi: 10.1080/07448481.2022.2076096
 29. Yaneta, Estherina & Suparman, Meiske (2021). The Role of Gratitude on Well-Being Among College Students Who Are Working Undergraduate Thesis. *Proceedings of the International Conference on Economics, Business, Social, and Humanities (ICEBSH 2021)*.