



HOW EMOTIONAL INTELLIGENCE INFLUENCES THE COGNITIVE OUTCOMES AMONG RURAL STUDENTS – DINDIGUL

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Abstract

Emotional intelligence, cognitive outcomes, relational engagement Education and learning as well as Emotional intelligence testing have a powerful set of combinations. Parents frequently have a tendency to struggle and fail to observe the psychological development of their children because they think that IQ is the only factor that matters for a generation's success. This study will assist parents in appreciating the value of EI in developing their children's cognitive behavior and helping them succeeds in the real world. A student can comprehend many facets of how to live their life and how to handle particular situations in society through cognitive behavior that is fully developed. Parents have found that the importance of child's psychological life in all facets of upbringing, brain development and kin-esthetic abilities .This study has examined the influence of Emotional Intelligence on the cognitive growth of young generation using the Primary data. This study looked into the connections between cognitive outcome and emotional intelligence of the rural area Dindigul .Total of 77 undergraduate and postgraduate students from rural area Dindigul responded. This research will influence the cognitive outcome for students.The researcher used descriptive,correlation and regression analysis. The findings resulted that Correlation between Careless Mistakes and Difficulty in presentation are high. They show a strong positive correlation (0.900 i.e., 90%).And the Correlation between Careless Mistakes and dealing with stress are high. They too show a strong positive correlation (0.845 i.e., 84.5%).Further Careless mistakes= (0.545) difficulty in presentation + (0.410) dealing with stress+0.693 and Careless mistakes happens when difficulty in presentation increases by (0.545) and dealing with stress increases by (0.410).Finally the findings show that there is no significant association between Careless mistakes and difficulty in presentation and dealing with stress.

Keyword-Students' cognitive outcome, emotional influence, emotional intelligence and cognitive behavior

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1. Introduction

Emotions are intricate mental and physical states that can be controlled and directed. They are composed of physiological, behavioral, and cognitive responses to circumstances. Events can be seen as sad, dangerous, or joyful, and physically, a sad situation can make you cry, while a dangerous situation can make your heart beat faster. Realizing how closely intertwined and connected emotions, thought, and action are is essential. A person's ability to adapt and succeed in life is facilitated by their emotional maturity, social skills, and intelligence. An individual who possesses emotional intelligence is better able to control their emotions, deal with stress, and find solutions to issues. A well-adjusted person has a higher chance of success in a variety of academic and professional settings with this.

Intelligence as an Important Factor in Learning

The students' IQ is one of the important factors that influence language learning. An individual's innate capacity for intelligence can be enhanced and increased by conditions like practice and environment. According to Krén and Séllei [30], emotional intelligence includes skills like the capacity to motivate oneself, intervene in situations to prevent wants from becoming uncontrollable, and delay gratification. On the one hand, the learning process is innately linked to the emotions of the learners that emerge in specific situations, such as feeling delighted after accomplishing something or frightened before a principal interview. Emotional techniques help students to control their emotions because it is anticipated that they would learn to deal with their emotions positively or adversely.

Emotional Quotient Vs Intelligence Quotient

The ability to manage one's own and others' emotions in order to work more effectively in a group or team is measured by one's emotional quotient, whereas a person's intelligence quotient is a measure of their capacity to learn, comprehend, and apply knowledge and skills in meaningful ways. The main distinction between emotional quotient and intelligence quotient is whether they assess a person's capacity for understanding facts or emotions. Since humans are gregarious and social animals, some psychologists contend that emotional quotient becomes more significant in leading a successful and happy life. However, both cognitive quotient and emotional quotient are essential in ensuring ability to achieve.

Emotional Intelligence

Emotional intelligence, according to Farooq (2003), is the capacity to perceive and identify emotions as well as to assimilate them and comprehend their significance. The capacity to control and regulate emotions is known as emotional intelligence (Salovey and Mayer, 1990). A composite of various emotional reasoning skills, such as the ability to perceive, comprehend, and regulate emotions, is what emotional intelligence refers to as opposed to a single trait or ability. Gift Rupande International Journal of Managerial Studies and Research (IJMSR) Page 134 Farooq (2003) proposed that experiencing emotions entails understanding the significance of various emotional states, their relationships to other sensory modalities, how basic emotions are combined to form complex emotions, and how emotions are influenced by experiences Regulating feelings.

Emotions

According to Yang (2009), emotions are the outcome of evaluating both internal and exterior pieces of information. They essentially develop and alter in reaction to

how an individual interacts with their environment. Emotions are multi-component reaction tendencies that manifest over a brief period of time, according to Sprirrow & Knight (2006). According to Reiff et al. (2001), emotions serve as the primary driving forces that stoke, support, and guide activity. A variety of behaviors, including helping, negotiation, altruism, risk-taking, and obedience, are said to be influenced by emotions, including learning.

Objectives of the Study

- To study impact of Emotional intelligence on cognitive behavior of young generation
- To study the major problems faced by adults in developing cognitive growth
- To examine the factors influencing the cognitive behavior of the adults
- To examine the variables influencing the Emotional intelligence of students
- To suggest how they can induce the cognitive growth through EI

Review of Literature

According to Ng Sar Ee 1 Juriah@Daing and Azizi Yahaya1, Junaidah Bachok1, Noordin Yahaya2, Yusof Boon1, Shahrin Hashim1, and Goh Mo Lee3 (2012) In their study "The Impact of Emotional Intelligence Element on Academic Achievement," reported that the findings revealed a significant relationship between academic achievement and self awareness ($r = 0.21$), emotional management ($r = 0.21$), and empathy ($r = 0.21$) at the level of $p < 0.05$. According to the results of multiple regression analysis (stepwise), the only emotional intelligence traits that could account for 8 point 7 percent of the variation in the criteria (academic accomplishment) were self-awareness ($\beta = 0.261$), self-motivation ($\beta = 0.182$), and empathy ($\beta = 0.167$). Research has produced yet another model that illustrates the relationship between elements of emotional intelligence and academic success.

According to Nasheetta Adams (2011), in their study "Emotional Knowledge among College Understudies at an advanced education Organization," concluded that feelings can be purposefully used and coordinated to work to an understudy's advantage by influencing and directing their line of thinking, which then flows into directing their behavior and activity. This expands and supports their outcomes and achievement rate at college. No matter how difficult it may be to accept, emotions are a part of which we are, and as such, they play a role in our success or failure as we pursue higher education.

According to Zahid ShafaitID1, Muhammad Asif KhanID2*, Umar Farooq Sahibzada1, Zdzisaw DackoPikiewicz3, and Jozsef Popp3 (2021) conducted a research titled "An assessment of students' emotional intelligence, learning outcomes, and academic efficacy: A correlation study in higher Education" stated that EI has a significant impact on learning outcomes. EI and learning outcomes are indirectly linked by student trust in teachers and the learning orientation. The relationship between a student's academic efficacies and learning outcomes has also been shown. There are few studies that examine the relationships between EI, student academic efficacy, learning orientation, learning outcomes, and student trust in teachers.

According to Anggi Tias Pratama and Aloysius Duran Corebima (2016) asserted in their study, "Contributions Emotional Intelligence on Cognitive Learning Result of Biology of Senior High School Students in Medan, Indonesia," that there is a connection between EQ and the outcomes of biological cognition. EQ can influence learning results by up to 5 points or 2 percent. Maintaining relationships contributed 4%, regulating emotions contributed 0%, motivating oneself contributed 0%, identifying others' feelings contributed 0%, and

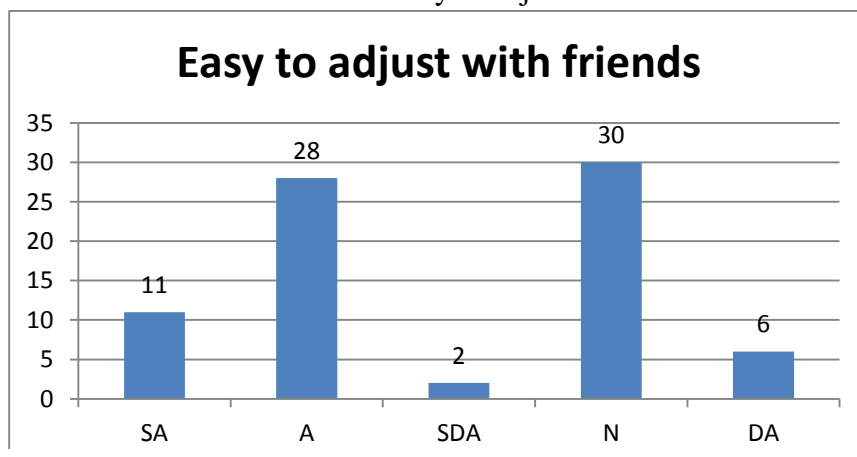
identifying one's own emotions contributed 0%. In order to assist students increase their EQ by putting the appropriate information learning strategies into practice, teachers may find it helpful to understand the relationship between EQ and biology learning outcomes as well as the contributions of each indicator.

According to Muhammad Azeem Ashraf, Shahnaz Perveen, Naima Qureshi, Zahid Imran, and Ning Jin (2021) in their study "What The ability to understand people on a profound level Means for Mental Results Among College Understudies: The Interceding Job of Social Commitment During the Corona virus Pandemic," expressed that the outcomes showed that EI affected COs both straightforwardly and in a roundabout way during the pandemic. Elevated

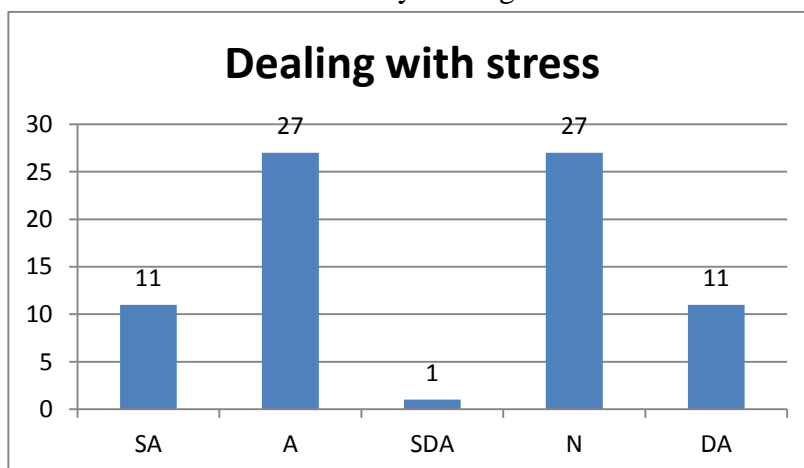
degrees of EI worked on the understudies' COs in the space of self-guideline (SR) and interactive abilities (SS). Also, it was found that EI attributes like SR, SA, E, M, and SS helped understudies' RE. The RE's positive connection with the COs proposes that it can possibly improve understudies' decisive reasoning abilities. To wrap things up, the RE assumed a significant part as a middle person in the connection between the EI and COs. The review's discoveries support the likelihood that understudies with higher EI and Once again scores will have better COs. There is likewise conversation of the examination's suggestions and thoughts for extra exploration.

Data Analysis and Interpretation Descriptive Analysis

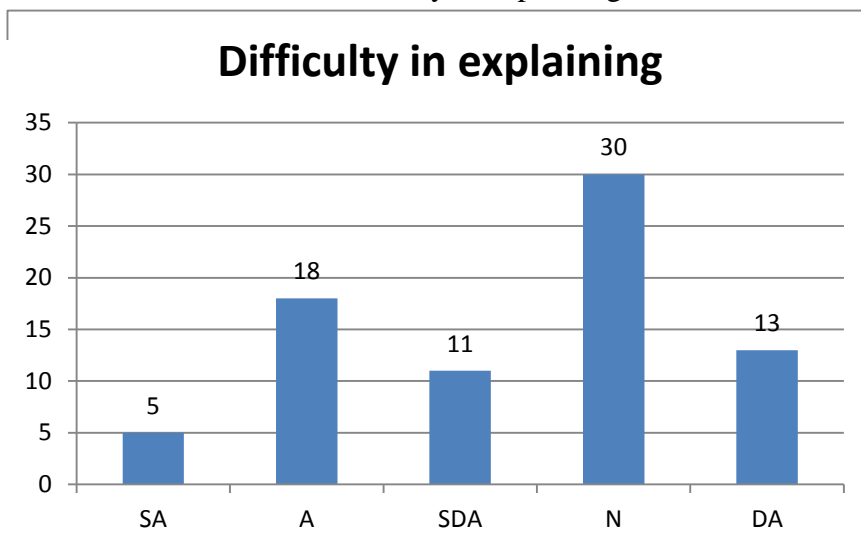
Students who find easy to adjust with friends



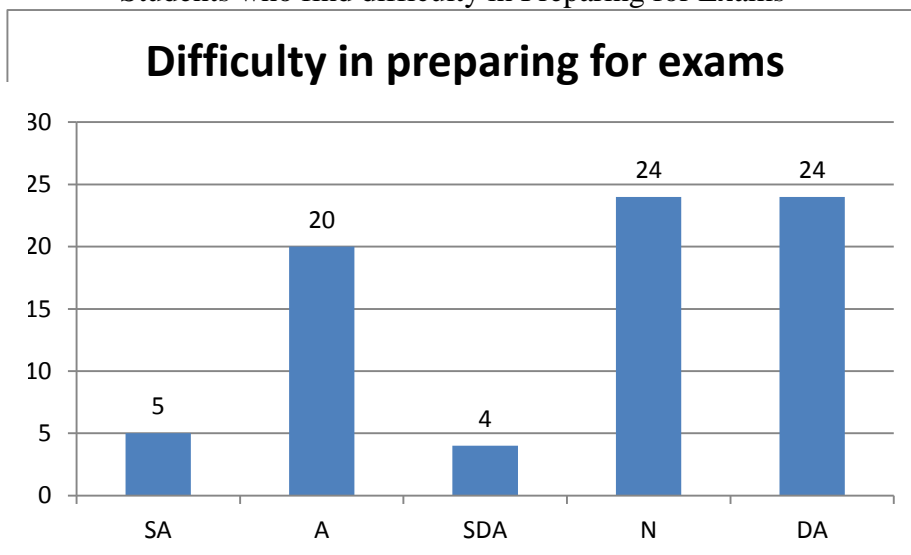
Students who finds easy dealings with stress



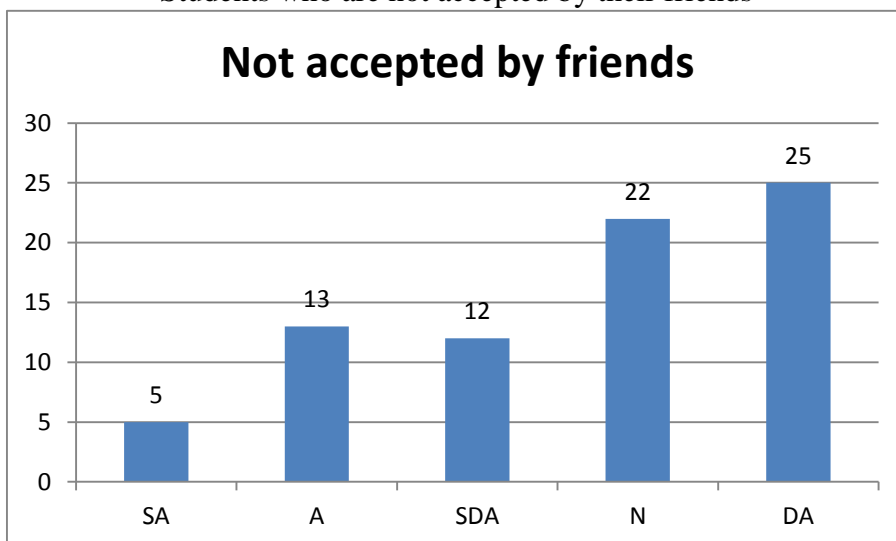
Students who find difficulty in explaining themselves

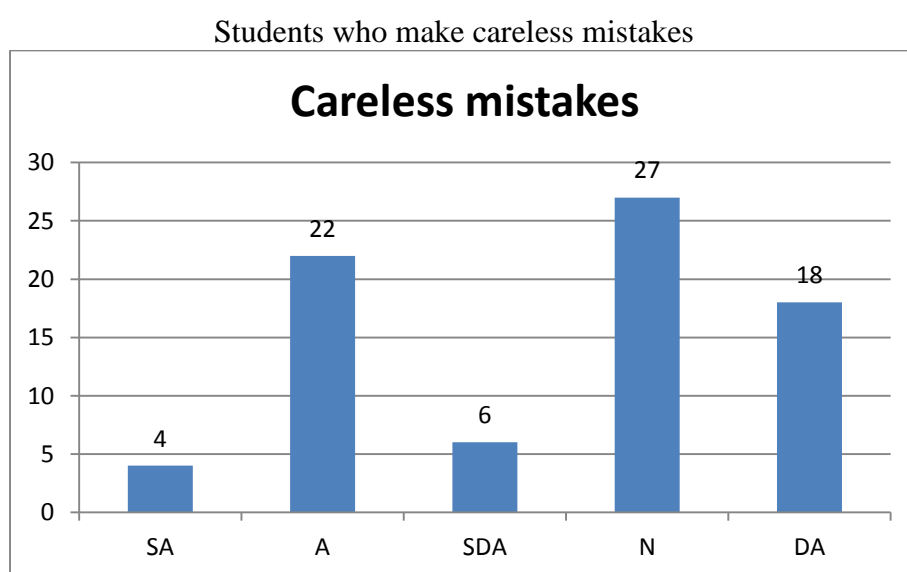
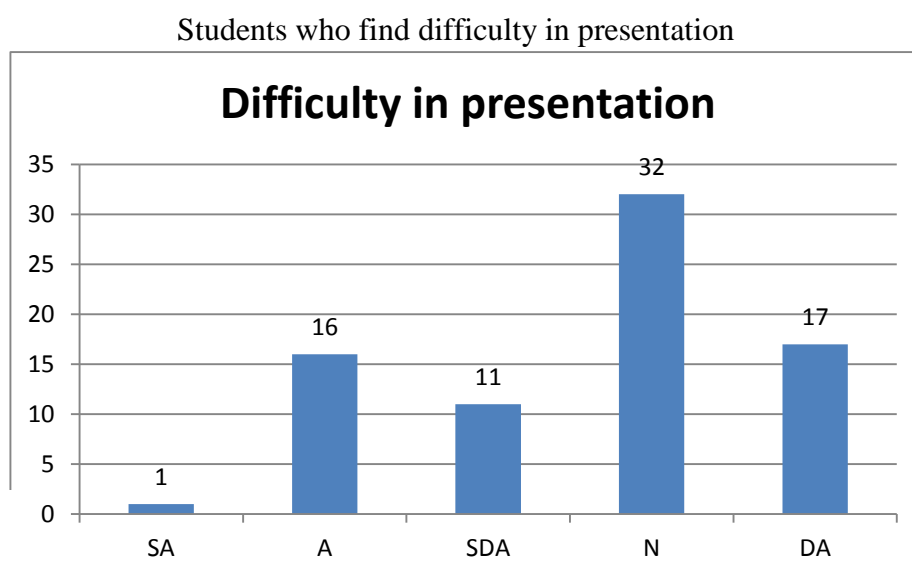
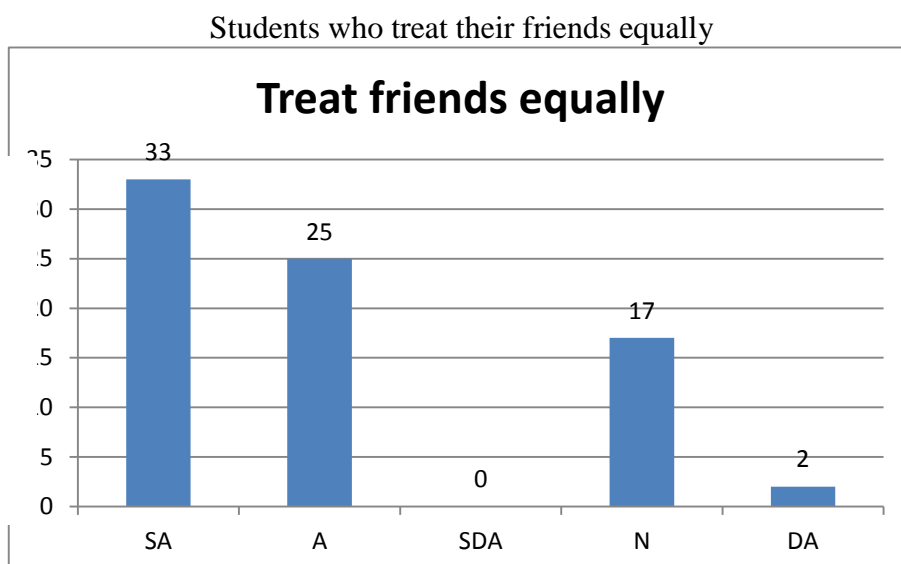


Students who find difficulty in Preparing for Exams

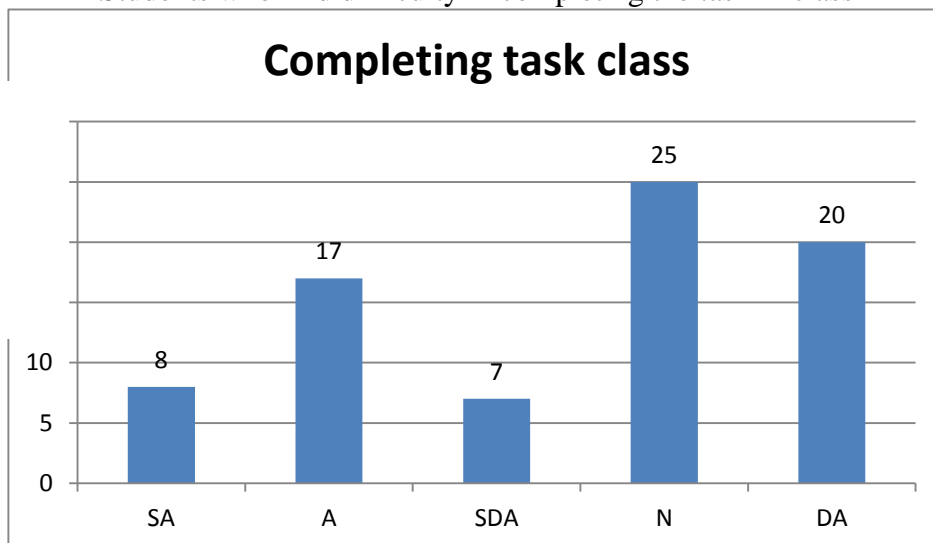


Students who are not accepted by their friends

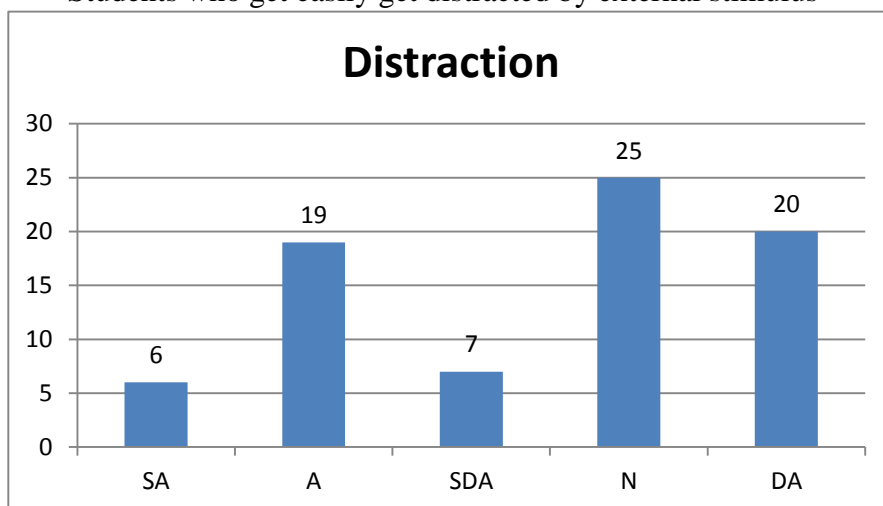




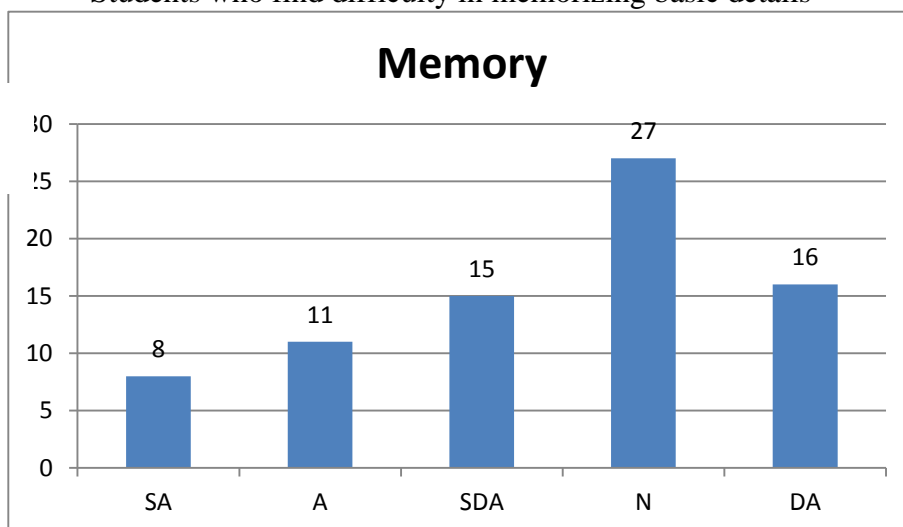
Students who find difficulty in completing the task in class



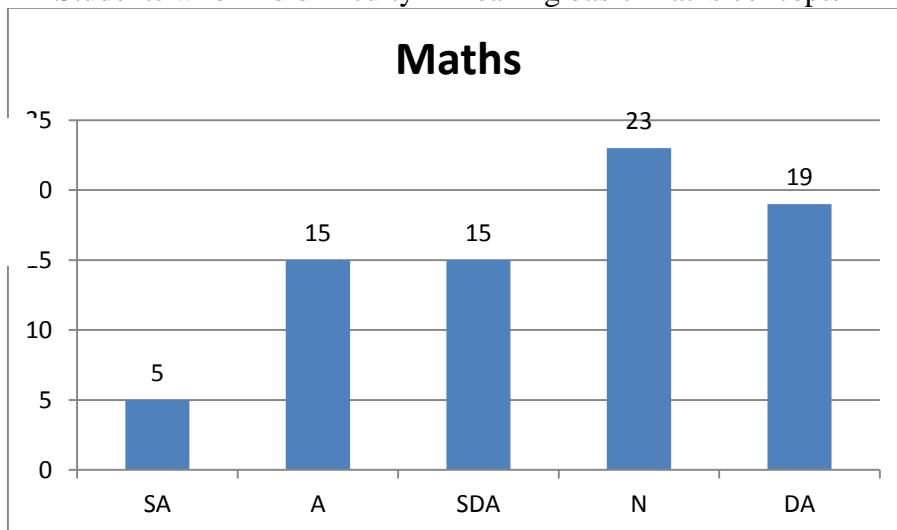
Students who get easily get distracted by external stimulus



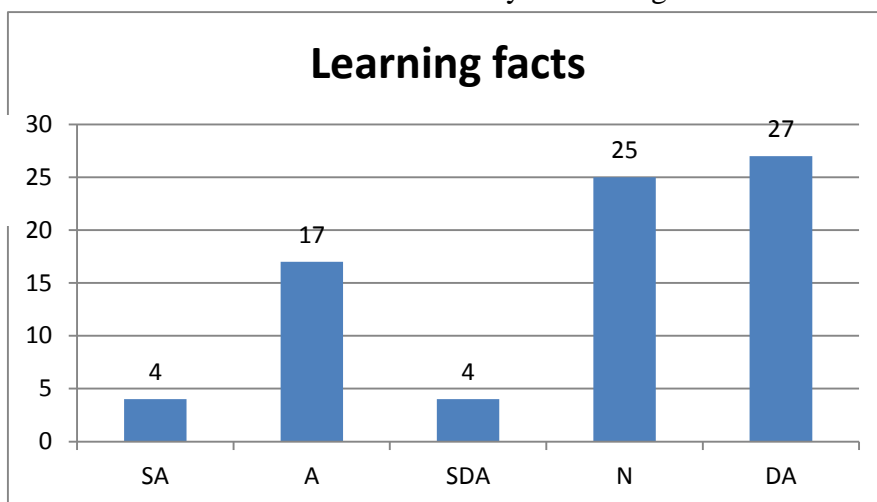
Students who find difficulty in memorizing basic details



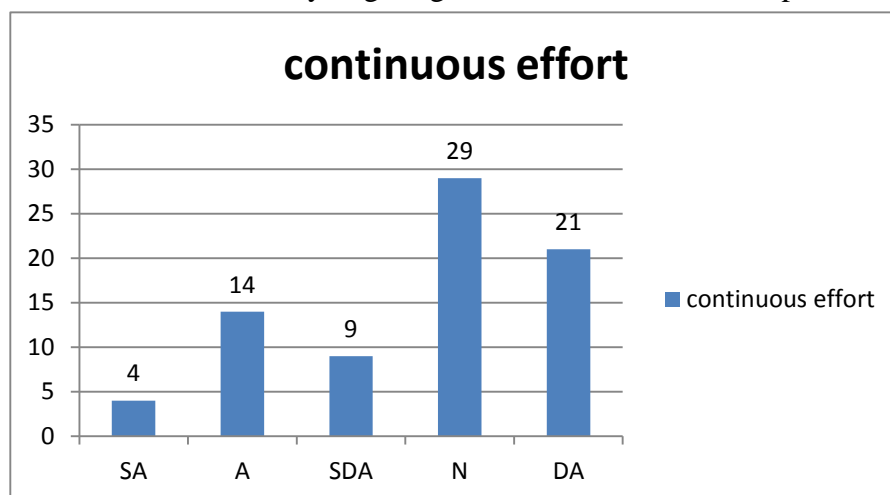
Students who find difficulty in Learning basic Maths concepts



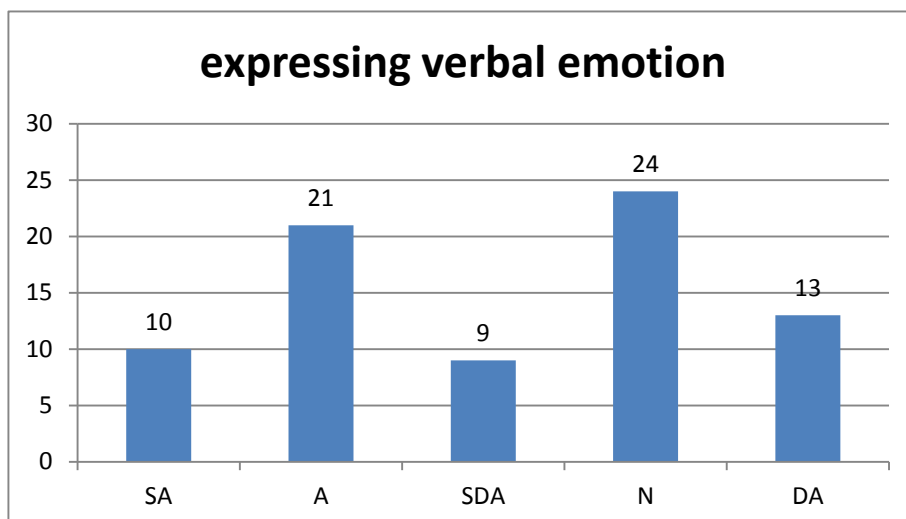
Students who find difficulty in learning facts



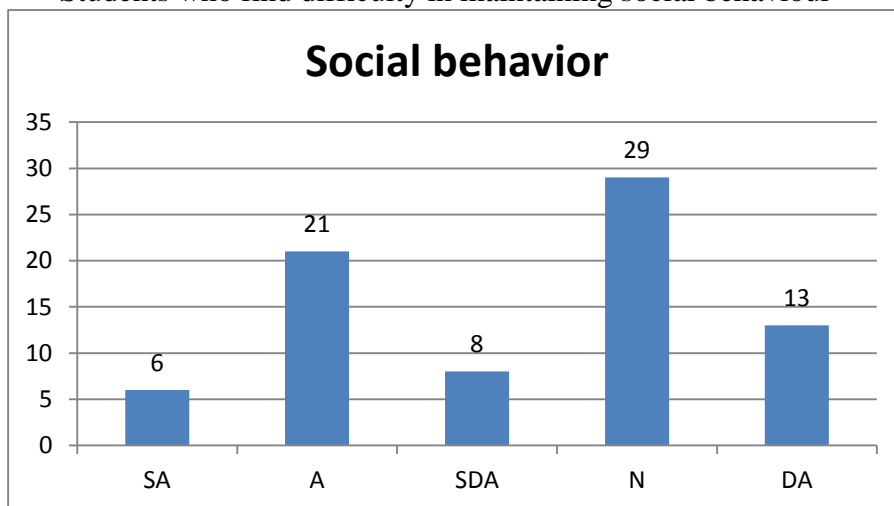
Students who find difficulty in giving continuous efforts to complete a task



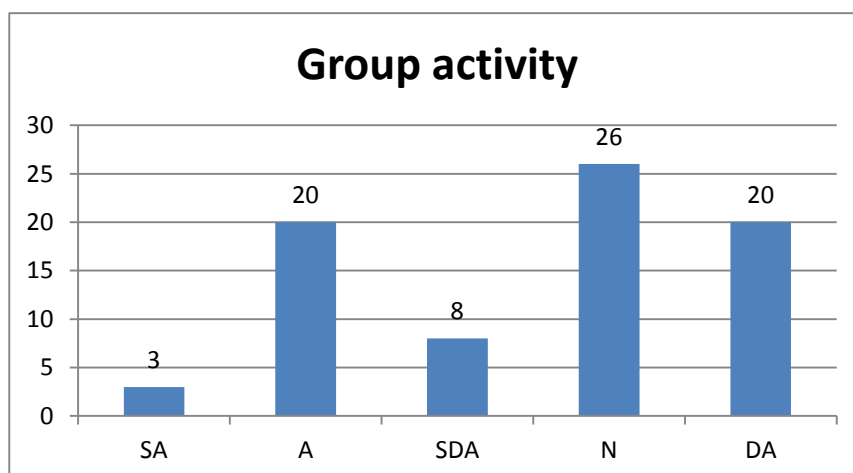
Students who find difficulty in expressing their verbal emotions



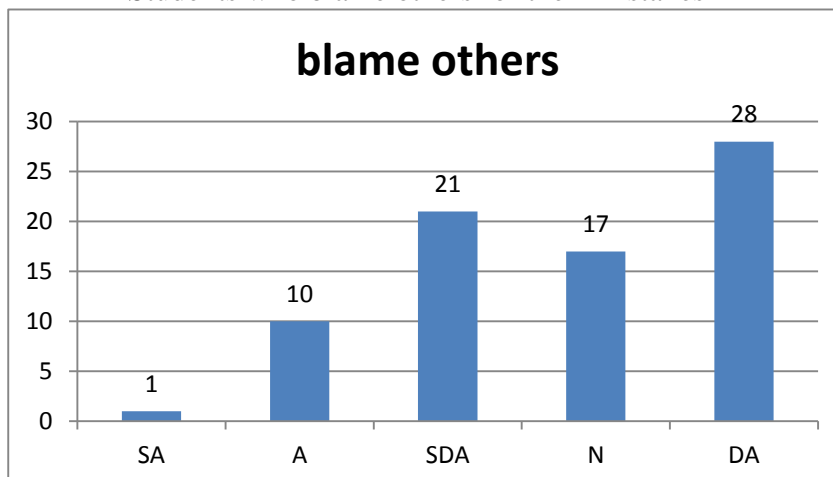
Students who find difficulty in maintaining social behaviour



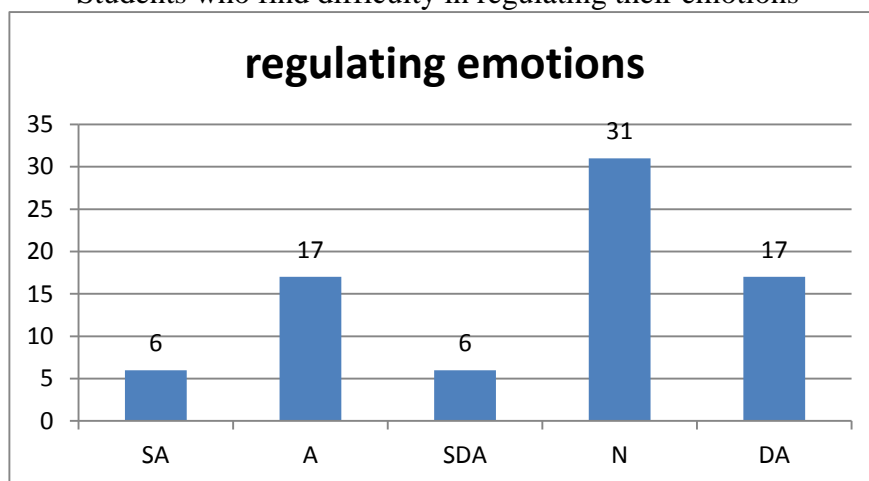
Students who find difficulty in adapting with the group activities



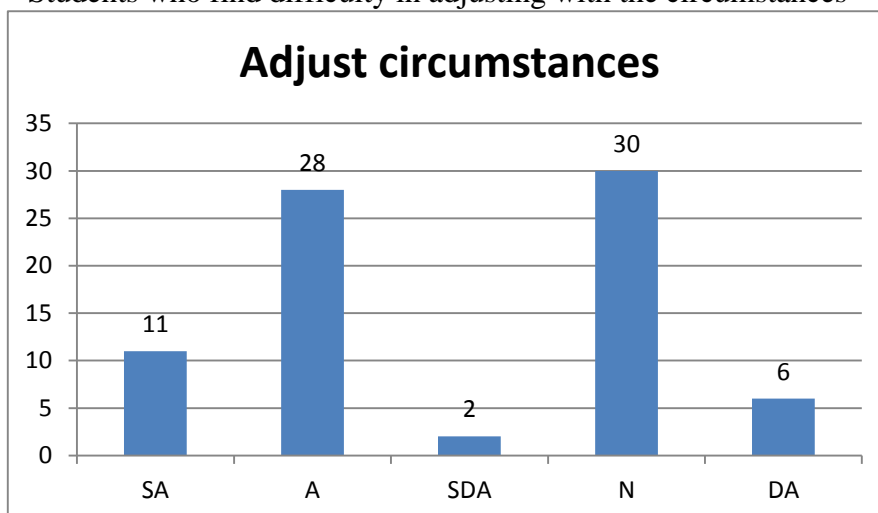
Students who blame others for their mistakes



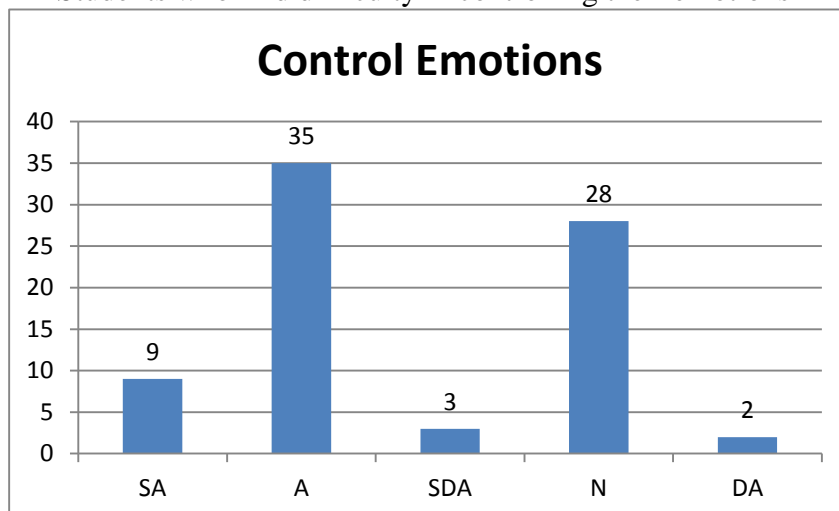
Students who find difficulty in regulating their emotions



Students who find difficulty in adjusting with the circumstances



Students who find difficulty in controlling their emotions



Correlation Analysis Correlation Matrix

	Careless Mistakes	Difficulty in presentation	Dealing with Stress
Careless Mistakes	1		
Difficulty in presentation	0.900	1	
Dealing with Stress	0.845	0.626	1

Interpretation

Correlation between Careless Mistakes and Difficulty in presentation are high. They show a strong positive correlation (0.900 i.e., 90%). Also, Correlation between Careless Mistakes and dealing

with stress are high. They too show a strong positive correlation (0.845 i.e., 84.5%).

Regression Analysis Multi linear Regression

Model Fit Measures

			Overall Model Test			
Model	R ²	Adjusted R ²	F	df1	df	P
1	0.941	0.881	15.9	2	2	0.059

R²=Co-efficient of determination=0.941
For multiple linear regressions adjusted R² shows the Accuracy of the Regression

Model which equals 88.1%. The larger the R², the better the regression model fits the observations.

Model Coefficients - Careless Mistakes

Predictor	Estimate	SE	t	p
Intercept	0.693	3.037	0.228	0.841

Difficulty in presentation	0.545	0.197	2.765	0.110
Dealing with stress	0.410	0.195	2.101	0.170

Hypothesis

H₀-There is no significant association between Careless mistakes and difficulty in presentation and dealing with stress.

H₁-There is a significant association between Careless mistakes and difficulty in presentation and dealing with stress

Multi linear regression equation

Y= Dependent variable

x₁, x₂ and x₃ = Independent variable

$Y=b_1x_1+b_2x_2+b_3x_3+.....b_nx_n+c+e$

Emotion variable (Y) - Careless mistake

Cognitive Variables(x₁ and x₂) - difficulty in presentation and easy dealing with stress

Inference

Careless mistakes= (0.545) difficulty in

presentation + (0.410) dealing with stress+0.693

Careless mistakes happens when difficulty in presentation increases by (0.545) and dealing with stress increases by (0.410)

P value of

Difficulty in presentation = 0.110

Easy to deal at stress = 0.179

All the variable p values are more than the significant p-value (0.05)

Hence H₀ is accepted in all the above cases.

There is no significant association between Careless mistakes and difficulty in presentation and dealing with stress.

Data Summary

Cooks Distance

			Range	
Mean	Median	SD	Min	Max
0.569	0.244	0.604	0.205	1.62

Inference

The mean cooks distance is 0.569 and the range is from 0.205 to 1.62

Regression Assumptions Check

Durbin-Watson Test for Auto correlation

Auto correlation	DW Statistic	P
-0.405	2.16	0.736

Inference

-The Durbin Watson statistic is a test for auto correlation in a regression model's output.

-The DW statistic ranges from zero to

four. A value above 2.0 indicates negative auto correlation.

-R.W. Farebrother (1980), "Pan's Procedure for the Tail Probabilities of the Durbin-Watson Statistic"

Collinearity Statistics

	VIF	Tolerance
Difficulty in presentation	1.64	0.609
Dealing with stress	1.64	0.609

Inference

Variance Inflation factor (VIF)

It is the measure of amount of multicollinearity in regression analysis.

It exists when there is a correlation between multiple independent variables (x_1, x_2 , etc)

If the VIF value is 1 to 5, then light correlation. Here VIF values for both the predictors are 1.64.

Reference

- James et al (2014)
- Bruce, Peter, and Andrew Bruce. 2017. Practical Statistics for Data Scientists. O'Reilly Media.
- James, Gareth, Daniela Witten, Trevor Hastie, and Robert Tibshirani. 2014 "An Introduction to Statistical Learning"

Normality Test (Shapiro Wilk)

Statistic	P
0.886	0.335

Inference

Since value of the Shapiro-Wilk Test is greater than 0.05, the data is normally distributed.

Reference

According to the Shapiro-Wilk test, a p-value greater than 0.05 ($p > 0.05$) represents the assumption that the data have been approximately normally distributed (Pearson, 2010).

2. Conclusions And Recommendations

The study mentions clearly about level of stress as the main factor which influences the cognitive factors and result in careless mistakes, presentation difficulty and controlling emotions. Since both types of intelligence are necessary, it's crucial to make sure that both are developed and to avoid putting too much emphasis on IQ alone. In order to properly communicate with others, students need learn how to control their own emotions as well as those of others. Utilizing certain emotion factors it is possible to enhance the cognitive growth of students and reduce unwanted factors like stress. It is highly recommended that one must analyse his own self emotions to rule over the cognitive growth and social requirements.

3. References

1. Purificación Checa, Pablo
2. Fernández-Berrocal "Cognitive Control and Emotional Intelligence-Effect of the Emotional Content of the Task. Brief Reports"
3. Nasheeta Adams (2011) "Emotional Intelligence amongst Undergraduate Students at a Higher Education Institution"
4. Mayer JD Salovey P Caruso D.R Sitarenios G. (2003) "Measuring emotional intelligence with the MSCEIT V2.0. Emotion"
5. Mayer J.D., Caruso D.R., Salovey P (2016) "The ability model of emotional intelligence"
6. Domínguez-García E. Fernández-Berrocal P (2018) "The Association between Emotional Intelligence and Suicidal Behavior"
7. Fernández-Berrocal P., Extremera N (2008) "A review of trait meta-mood research"
8. Alegre, A.; Benson, M.J (2010) "Parental behaviors and adolescent adjustment: Mediation via adolescent trait emotional intelligence"
9. Matthews, G.; Zeidner, M.; Roberts, R.D (2002) "Emotional Intelligence. Science & Myth; MIT Press"
10. Salovey, P.; Bedell, B.; Detweiler, J.B.; Mayer, J.D (2002) "Current directions in emotional intelligence research. In Handbook of Emotions, 2nd ed.; Lewis, M., Haviland-Jones, J.M., Eds"
10. Belfer, M. L. (2008) "Child and

- adolescent mental disorders: the magnitude of the problem across the globe. *J. Child Psychol. Psychiatry*”
11. Benner, A. D. (2011) “Latino adolescents’ loneliness, academic performance, and the buffering nature of friendships. *J. Youth Adolesc*”
12. Boden, M. T., and Thompson, R. J. (2015) “Facets of emotional awareness and associations with emotion regulation and depression, *Emotion*”
13. Bor, W., Dean, A. J., Najman, J., and Hayatbakhsh, R. (2014) “Are child and adolescent mental health problems increasing in the 21st century? A systematic review. *Aust. N. Z. J. Psychiatry*”
14. Bourke, C., Douglas, K., and Porter, R. (2010) “Processing of facial emotion expression in major depression: a review. *Aust. N. Z. J. Psychiatry*”
15. Brackett, M. A., Mayer, J. D., and Warner, R. M. (2004) “Emotional intelligence and its relation to everyday behavior. *Personal. Individ. Differ*”
16. Kendra Cherry (2022) “What Is Emotional Intelligence? The Ability to Perceive, Evaluate, Express, and Control Emotions”
17. <https://brainconnection.brainhq.com/category/child-development>
18. Salovey P Mayer J.D Goldman S.L Turvey C Palfai T.P. (1995) “Emotional attention, clarity, and repair: Exploring Emotional Intelligence using Trait Meta-Mood Scale. In: Pennebaker J.W., editor. *Emotion, Disclosure and Health*”
19. Javed Iqbal 1, Muhammad Azeem Ashraf , Shahnaz Perveen3 , Naima Qureshi 4,Zahid Imran5 and Ning Jin2 (2021) “How Emotional Intelligence Influences Cognitive Outcomes Among University Students: The Mediating Role of Relational Engagement During the Covid-19 Pandemic”
20. Azizi Yahaya1 , Ng Sar Ee 1 Juriah@Daing Junaidah Bachok1 , Noordin Yahaya2 , Yusof Boon1 ,Shahrin Hashim1 , Goh Mo Lee3 (2012) “The Impact of Emotional Intelligence Element on Academic Achievement”
21. Anggi Tias Pratama1, Aloysius Duran Corebima2 (2016) “Contributions Emotional Intelligence on Cognitive Learning Result of Biology of Senior High School Students in Medan, Indonesia”
22. Zahid ShafaitID1, Muhammad Asif KhanID2*, Umar Farooq Sahibzada1, Zdzisław DackoPikiewicz3, Jozsef Popp3 (2021) “An assessment of students’ emotional intelligence, learning outcomes, and academic efficacy: A correlation study in higher Education”
23. Mayer J.D., Salovey P. (1997) “Emotional Development and Emotional Intelligence: Implications for Educators”