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Impact of Flow State and Emotional Intelligence on Academic Performance: A Study on Secondary School Students

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Abstract

The pursuit of academic excellence is an essential aspect of students' lives. Improving academic performance not only enhances the educational experience but also leads to various career opportunities and fosters positive personal growth. Flow is a state of deep concentration and absorption in a work. It has emerged as an important determinant of academic performances. Similarly, emotional intelligence has also been linked to academic success and influences cognitive processes. Therefore, this study was envisaged to measure the impact of flow and emotional intelligence on academic achievement. This study was carried out on a sample of 173 respondents from classes IX to XII, including 101 male and 72 female students. A schedule was prepared for the data collection, which included Schutte et al. Emotional intelligence test, Jackson & Eklund dispositional flow scale. Results indicated that all four dimensions of emotional intelligence were found to have a positive and significant correlation with academic performance scores. However, the correlations between flow scores and academic performance were not found to be significant. Multiple regression analysis revealed that only emotional intelligence appeared as a significant predictor of academic performance. This result could be attributed to the ability of emotionally intelligent individuals to better manage their emotions, stay motivated, and maintain focus during the learning process.

Keywords: emotional intelligence, flow, academic achievement

Introduction

The pursuit of academic excellence is a pivotal aspect of students' lives. It profoundly impacts their development into responsible individuals. Parents prioritize their children's academic commitments over distractions, supporting students in their pursuit of valuable knowledge for academic success. Improved academic performance not only enriches the educational experience but also opens doors to various career prospects and fosters positive personal growth. Achieving high grades through diligence and overcoming challenges instils a sense of accomplishment, cultivating essential life skills like leadership, time management, effective communication, logical reasoning, and problem-solving.

Assessing students' learning involves both direct and indirect methods. Direct methods incorporate exam., assignments, quizzes, research projects, reports and oral presentations, while indirect measures include course evaluations, surveys, enrolment data,

alumni feedback, and job placement rates. Summative assessments like tests and graded activities evaluate overall student performance, often concluding a unit or course, whereas formative assessments provide ongoing feedback and guidance for improvement, typically administered during regular school hours.

Emotional intelligence refers to the ability to perceive, evaluate, interpret, and manage emotions. It is commonly assumed that people with high emotional intelligence can use emotional information to guide thinking and manage them appropriately, and regulate emotions to adapt to environments (Salovey & Mayer, 1989; Colman, 2008). Emotional intelligence has been linked to academic success, influencing cognitive processes, attention, and self-regulation crucial for effective learning (Mikolajczak et al., 2015; Preeti, 2013). Quílez-Robres et al. (2023) opined in a meta-analysis that there is a significant correlation between emotional intelligence and academic performance. Some studies, on the other hand, indicating a direct and robust relationship (Monica & Ramanaiah, 2019; Lievens et al., 2022) and some propose a moderating role of emotional intelligence in enhancing efficient strategies to academic tasks (Gil-Olarte & Gil-Olarte, 2022; Lyons & Schneider, 2005).

Flow, characterized by deep concentration and absorption in an activity (Csikszentmihalyi, 1990), has emerged as a possible determinant of academic achievements (Kaya & Ercag, 2023). Research indicates a positive association between learning flow and academic achievement, although findings vary in terms of significance and magnitude (Jinmin & Qi, 2023; Kuhnle et al., 2012). While some studies highlight a significant correlation between flow and academic success, others suggest a need for further investigation to understand the complex relationship between flow experience and student performance (Ye et al., 2019; Adil et al., 2022).

Methods

Sample

This study was conducted on a sample of 173 respondents from classes IX to XII, including 101 male and 72 female students. The sample was selected by using purposive sampling techniques from different private and government secondary schools in Darbhanga town.

Measures

A schedule was prepared for the data collection, which included the following scales/tools:

1. **Demographic Information:**

This section included a schedule of demographic information for respondents, such as age, gender, class, and academic marks.

2. Emotional Intelligence Scale

Schutte et al. developed this scale in 1998. It is popularly known as the Schutte Emotional Intelligence Test. This test assesses four dimensions of emotional intelligence. These are: a. perception of emotion, b. utilising emotion, c. regulating self-relevant emotion

and d. managing others' emotions. Altogether it is a 33-item scale, each item rated on a 5-point scale. Their responses are oscillating from strongly agree to strongly disagree.

3. Dispositional Flow Scale

The flow scale was advanced by Jackson & Eklund (2002). It is also known as the Dispositional Flow Scale 2. The scale contains 36 items that measure the flow experiences of the respondents.

Results and Discussion

The responses obtained on the measures mentioned above were statistically analysed. Pearson's coefficient of correlation was calculated to measure the association between emotional intelligence, flow, and academic performance, and the results are shown in the table below.

All four components of emotional intelligence were found to have a positive and significant correlation with academic performance scores. Academic performance was associated with emotional intelligence components such as emotion perception (r=.357, p<.000), emotion management (r=.393, p<.000), emotion management with others (r=.354, p<.000), and emotion utilization (r=.312, p<.000). Furthermore, the correlation between overall and emotional intelligence was found to be highly significant (r=. 503, r<.00). All of these correlations support the notion that emotion is a good predictor of academic performance. Golman supports the view that emotional intelligence, rather than traditional IQ, is a predictor of academic achievement.

Table-1

Correlations among dimensions of emotional intelligence, flow and academic achievement

	Perception of Emotion	Managing Own Emotion	Managing Other Emotion	Utilisation of Emotion	Emotional Intelligence	Flourishing	Academic Performance
Perception of Emotion	1	.451**	.274**	.408**	.751**	.213**	.357**
Managing Own Emotion	.451**	1	.413**	.463**	.781**	.182*	.393**
Managing Other Emotion	.274**	.413**	1	.287**	.635**	.196**	.354**

Utilisation of Emotion	.408**	.463**	.287**	1	.679**	.129	.312**
Emotional Intelligence	.751**	.781**	.635**	.679**	1	.238**	.503**
Flow	.213**	.182*	.196**	.129	.238**	1	.123
Academic Performance	.357**	.393**	.354**	.312**	.503**	.123	1
**. significant at the 0.01 level, *. significant at the 0.05 level.							

However, the correlations between flow scores and academic performance were not found to be significant (r=.123, p>.05). It indicates the notion that flow is a state of absorption toward an interesting and challenging task. The school examinations and subjects taught in their class may or may not be found interesting and challenging for respondents. Thus, an insignificant relationship was found with the flow.

To measure the predicting effect of emotional intelligence and flow scores on academic performance, multiple regression analysis was computed and results are posted in table-2. It was found that both emotional intelligence and flow could determine only 25% of academic performance (R2=.253). The unstandardised B coefficients indicate emotional intelligence only emerged as a significant predictor of academic performance (B=. .259, p<.000). The predicting effect of flow was extremely poor (B=.005, p.>.05).

Table-2

Multiple regression showing the impact of emotional intelligence and flow on academic performance

R	R Square	F Ratio	Unstandardised B coefficient
.503	.253	F=28.847, p<.000	Flourishing- .005, p>.00 Emotional Intelligence- .259, p<.000

The reason for the significant effect of emotional intelligence on academic performance was largely due to the fact of its inherent properties. Emotional intelligence and the ability to understand self and other emotions, regulating and utilising other emotions in a meaningful way. Therefore, it helps students to understand the purpose of course content and its evaluations. As a result, academic performance is enhanced.

Conclusion

An insightful overview of the research on the link between emotional intelligence, flow, and academic performance. This topic has garnered significant attention from various stakeholders due to its importance. The finding that emotional intelligence is directly linked to academic performance aligns with several previous studies, reinforcing the importance of emotional skills in academic success. This relationship could be attributed to the ability of emotionally intelligent individuals to better manage their emotions, stay motivated, and maintain focus during the learning process. The lack of a significant association between flow and academic performance is an interesting finding that seems to contradict some previous research in this area. Alternatively, there may be moderating or mediating factors that could explain the relationship between flow and academic achievement, which warrants further investigation.

Intensive research is required to disentangle the complex relationship between flow and academic performance. This could involve exploring different conceptualizations and measurements of flow, considering potential moderating variables and employing longitudinal or experimental designs. Further, examining the interplay between emotional intelligence, flow, and other psychological attributes could provide a wide-ranging understanding of the factors affecting academic success.

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