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Study of academic achievement in secondary school students

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Abstract

Academic flow emerged as a significant predictor of academic achievement at the secondary school level. The main objective in this paper is to investigate the impact of academic flow in secondary school students and determine gender differences in flow if any. A sample of 200 secondary school students was selected for this purpose. For measuring flow, a self-constructed tool was administered (Standardized earlier) on the students. The study suggests the importance of pleasant academic experiences for ensuring all round and positive development of the students.

Keywords: predictor, psychology, achievement

Introductions

Sumaya & Darling (2018) investigated flow, procrastination and academic performance in real time using experience sampling method; the flow was measured by examining skills versus challenge as reported by the student. Both flow and procrastination were recorded for a period of six days (the due period for submitting an assignment). It was found that students experiencing flow performed significantly higher than the non-flow ones. Rijavec, Golub & Olcar (2016) enquired how often students experience flow at faculty and in everyday life. A sample of 176 university students was taken for this purpose. It was found that flow was occasionally experienced in faculty related activities (highest while preparing for seminars and exams and least during lectures.) The flow was found to occur more frequently in non-academic settings as compared to academic settings. Joo, Oh & Kim (2015) conducted structure equation modeling to examine the relation of self-efficacy, test anxiety, instructional design, intrinsic value, flow and achievement in students of an online university in Korea. The flow was found to be significantly affected by self-efficacy and instructional design. Moreover, intrinsic value, self-efficacy, and flow had a significant impact on achievement. Flow also had a mediating effect on self-efficacy and achievement and instructional design and achievement.

Academic achievement, on the other, has remained as the most accepted criterion for measuring to what extent educational goals have been accomplished. However, there is no consensus on how it is best measured but generally cumulative percentage of marks or cumulative grade point average obtained are considered as one's academic achievement at the secondary school level.

As such, a student experiencing flow in academic situations is more likely to perform better than a student not experiencing flow. The reason is clear: a person experiencing flow has clear goals, is intrinsically motivated, finds pleasure in doing the task and experiences a balance between challenge and his skills. Unfortunately, in real school situations, some students find school activities too easy, while for others it might be too difficult. The optimal skill ratio is not achieved for most students.

Analysis

The study employed a descriptive survey method for achieving the objectives. A sample of 200 secondary school students was taken for the study. It comprised of 100 boys and 100 girls. The age of the students ranged from 13 to 16 years (Mean Age= 14.6). A response rate of 83% was recorded (166 questionnaires were duly filled comprising 82 boys and 84 girls).

Academic Flow

A scale was constructed to measure academic flow in secondary school students. After carefully reviewing Mihaly Csikszentmihalyi's concept of Flow, five dimensions were identified, namely, Clarity of Goals, Intrinsic Motivation, Pleasure and Enjoyment,

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Concentration and Level of Confidence. The original draft had 55 items which were subsequently reduced to 35 after expert review and subsequent try outs. The final 35 items discriminated well with t values significant at 95% level of confidence. The reliability of the test was found to be 0.78 (Cronbach Alpha).

Table 1: Based on scores obtained, the following categories were identified.

Particulars	Score Range
High Academic Flow	90 and above
Average Academic Flow	75-90
Low Academic Flow Below	75

Academic Achievement

Percentage of marks obtained in the last final examination was considered the academic achievement of the students. Four schools were randomly selected from the Darbhanga district of Bihar by the researcher. Due permission was obtained from the Principals of the school after explaining the purpose and details of the data collection. Students were given guidelines about the questionnaire and ensured that their responses would remain confidential. Only willing students were given the questionnaire; it was ensured that they are seated comfortably. Enough time was given to the students to fill the questionnaire. They were free to ask any query related to the questionnaire.

Discussion of the Results

Academic Flow was measured as the total score obtained on the Academic Flow Scale (as constructed by the investigator). As per the scores obtained, students were categorized into three categories; High Flow Experience (90 & above), Average Flow Experience (75-90) and Low Flow Experience (below 75).

Table 2: The following table categorizes students according to the level of academic flow experienced.

Range of Score	Frequency	Percentage
High (90 & above)	35	21.07
Average (75-90)	95	57.22
Low (below 75)	36	21.68

It is evident from the table that around 21% of students experienced high academic flow, a total of 57.23% of the students experienced average academic flow, and around 22% students undergo low academic flow. It can be concluded that a good majority of secondary school students experience average academic flow.

Gender differences in Academic Flow and Academic Achievement

The following hypothesis was framed for the purpose of determining gender differences in academic flow:

H₀₁ - There is no significant difference in the flow levels of secondary school boys and secondary school girls.

Table 3: Welch's t-test was used to find the significance of the difference between male and female students. The following results were obtained.

Group	Frequency	Mean score	S.D.	t value
Male	82	80.20	10.47	1.51
Female	84	82.57	9.83	

It is evident from the table that Boys and girls do not differ significantly in their academic flow scores. Thus, null hypothesis H₀₁ is accepted.

H₀₂– There is no significant difference in the academic achievement of secondary school boys and secondary school girls.

Table 4: Welch's t-test was used to find the significance of the difference between male and female students' academic achievement. The following results were obtained.

Group	Frequency	Mean score	S.D.	t value
Male	82	74.58	13.84	6.22*
Female	84	85.82	8.75	

*Significant at 0.05 level

It is evident from the table that the academic achievement of male and female students differ significantly. The null hypothesis H₀₂ is thus rejected. The mean value of academic achievement for females is 85.82 whereas for males it is just 74.58 leading to the conclusion that the academic achievement of females is better than males in secondary schools.

Relationship between Academic Flow and Academic Achievement

The following research hypothesis was framed for the correlation between academic flow and academic achievement.

H_R: There is a significant correlation between academic flow and academic achievement.

Group	Correlation with Academic Achievement	Sig. (2 tailed)
Secondary School Students	0.15	P<.01

The table shows that the relation between academic flow and academic achievement was positive and significant at 0.05 level of confidence.

Regression Analysis

Table 5: To determine the extent to which flow contributes to academic achievement, linear regression was used.

R	R Square	Adjusted R Square	Std. The error of the Estimate	Standardized coefficients	F value	Sig
.15	.015	.03	12.76221	0.12	3.8	P<.05

The results of the study reveal that the majority of the students experience an average level of flow in academic situations. A total of 57.23% of secondary school students experience average flow, whereas 21.08% had a high level of flow experience and 21.69% had a low range of score on flow which is a normally distributed population. A significant positive relationship was found between academic flow and academic achievement (r=0.15). This finding is in line with the findings of Joo, Oh, and Kim (2015), Sumaya & Darling (2018).

On comparing the academic flow of male and female secondary school students, no significant difference was found. However, the academic achievement of secondary school students differed significantly with females performing much better than male students. No previous

study was found by the researcher that compared flow experiences between male and females. Moreover, the flow was found to be a significant predictor of academic achievement in the current study.

Conclusion

The school system does not provide for any of them. The uninteresting curricula, obsolete methods of teaching and the monotonous school routine make it very tough for the student to experience the flow state. Goodlad (1984) suggested schooling to be predominantly passive, individualistic and teacher-centered. (As cited in Shernoff & Csikszentmihalyi, 1970). There was no significant difference in the flow experienced by secondary school males and females. However academic achievement differed significantly for male and female students. A study conducted by Mcquillan & Conde (2006) suggests that flow is more likely to occur when students have interests in the text.

Efforts should thus be made to make the content interest stimulating for the students. Use of innovative methods of teaching, revision of the prescribed books can help stimulate the interest of the students. Similarly, students should be taught to frame clear goals concerning the academic task they are involved in. This would help them attain clarity of goals which is another important dimension of the flow state. Providing honest feedback, revising the system of rewards and improving one's self-esteem can help in intrinsically motivate students. Intrinsic motivation is a prerequisite for the flow state to occur.

References

1. Jackson SA, Marsh HW. Development and Validation of a Scale to Measure Optimal Experience: The Flow State Scale. *Journal of Sport and Exercise Psychology*. 1996;18(1):17-35. doi:10.1123/jsep.18.1.17
2. Custodero LA. Observable indicators of flow experience: a developmental perspective on musical engagement in young children from infancy to school age. *Music Education Research*. 2005;7(2):185-209, DOI: 10.1080/14613800500169431
3. Abuhamdeh S, Csikszentmihalyi M. The Importance of Challenge for the Enjoyment of Intrinsically Motivated, Goal-Directed Activities. *Personality and Social Psychology Bulletin*. 2011;38(3):317-330. doi:10.1177/0146167211427147
4. Larson R. Flow and writing. In M. Csikszentmihalyi & I. Csikszentmihalyi (Eds.), *Optimal Experience: Psychological Studies of Flow in Consciousness*, 1988, 150-171. Cambridge: Cambridge University Press. Doi:10.1017/CBO9780511621956.009
5. Nakamura J, Csikszentmihalyi M. The Concept of Flow. In Synder CR, Lopez SJ. (Ed.) *Oxford handbook of positive psychology*. Oxford University Press, USA. 2009, 89-105.
6. Shernoff DJ, Csikszentmihalyi M. *Flow in Schools Cultivating Engaged Learners and Optimal Learning Environments*, 1970 January 01. Retrieved from <https://core.ac.uk/display/100006746>.