
CHAPTER - 7

SUMMARY AND CONCLUSIONS

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7.1 SUMMARY

Empirical studies have shown that academic achievement is an end product of many interrelated factors that work simultaneously. Among these factors, students' motivation plays an important role in determining the level of achievement. The fact of preferred motivational styles in individuals led to the assumption that perhaps assessing different motives and studying their integration may provide a key to further understanding of variances in academic achievement. The study reported in the foregoing pages therefore tried to study three important psycho-social motives viz., achievement motive, affiliation motive and power motive in relation to academic achievement of high school students. Due to lack of reliability and difficulty in administration and scoring of projective measures, and due to recent emphasis on multi-dimensional construct of motives, a need was also felt to develop comprehensive objective measures of motives.

The objectives of the study were:

1. To develop and standardize comprehensive objective measures of achievement motive, affiliation motive and

power motive, in Hindi, for school going population.

2. To study the nature of the distribution and sex differences in achievement motive, affiliation motive and power motive of high school students.
3. To find out the interrelationship among achievement motive, affiliation motive and power motive of high school students.
4. To study the relationship of achievement motive, affiliation motive and power motive with the academic achievement of high school students.
5. To study the joint and relative contribution of achievement motive, affiliation motive, power motive, intelligence and background factors (viz., parents' education, their income and occupational level, birth order of the student and number of siblings in the family) in determining the academic achievement of high school students and to derive a multiple regression equation for predicting the same.
6. To measure the interaction effect of high, average and low levels of achievement motive, affiliation motive and power motive on the academic achievement of high school students.

The study was carried out in two phases. In the first phase research findings on the nature of the three motives were

extensively reviewed, on the basis of which a pool of stimulus items tapping the diverse characteristics of the individuals high on the respective motives were prepared for the three inventories purporting to measure achievement motive, affiliation motive and power motive. These initial pool of items were then tried out on a purposive sample of 370 high school students drawn from seven schools of Varanasi. Data accumulated from them was analysed and treated in several ways to examine the internal consistency and the discriminative indices of the items. After determining the suitability of the items empirically, 30 valid items in each inventory were retained for the final form of the respective inventories. To standardize the developed inventories, the final form of achievement motive, affiliation motive and power motive inventories were further administered to a sample of 1000 high school students consisting of 500 boys and 500 girls. The data obtained was analysed and stanine norms were developed. Different forms of reliabilities and validities of the three respective inventories were also worked out and found to be satisfactory.

In the second phase a sample of 807 high school students (359 boys and 448 girls) was drawn from class X of 20 randomly selected recognized High Schools of Varanasi city for the main study. This phase of the study was forwarded on the hypotheses that (1) academic achievement of high school boys and girls is differently related to their achievement

motive, affiliation motive, power motive, intelligence and background factors on the basis of which it is possible to develop a specification equation for predicting the academic achievement; and that (ii) achievement motive, affiliation motive and power motive interact to affect the academic achievement of high school boys and girls. These hypotheses were, however, specifically stated in the null-form as follows, so that they could be tested statistically:

1. There is no significant sex difference in the (a) achievement motive; (b) affiliation motive; (c) power motive scores of high school students.
2. There is no significant relationship between the (a) achievement motive and affiliation motive; (b) achievement motive and power motive; (c) affiliation motive and power motive scores of high school students.
3. There is no significant relationship between academic achievement and (a) achievement motive; (b) affiliation motive; (c) power motive scores of high school students.
4. Academic achievement of high school students cannot be significantly predicted with the help of scores on nine predictor variables viz., achievement motive, affiliation motive, power motive, intelligence, parents' income, their educational and occupational level, birth-order of the student and number of siblings in the family.

5. There is no significant effect of high, average and low levels of (a) achievement motive; (b) affiliation motive; (c) power motive of the academic achievement of high school students.
6. There is no significant interaction effect of (a) achievement motive x affiliation motive; (b) achievement motive x power motive; (c) affiliation motive x power motive; and (d) achievement motive x affiliation motive x power motive on the academic achievement of high school students.

In order to obtain data for testing the above hypotheses achievement motive, affiliation motive and power motive were measured with the help of the three respective inventories developed by the researcher. Total marks obtained in the high school public examination conducted by the Board served as the criterion of academic achievement. Jalota's Group Test of General Mental Ability was used to measure intelligence and a Personal Data sheet was employed to elicit background information regarding the students under study.

Relative distribution of the three motives was studied with the help of a profile chart. Sex differences in these motives were assessed by applying t-test of significance of difference between means. Coefficient of correlation was computed to find out the relationship among the variables under study. Stepwise multiple regression analysis was carried out to study the joint and relative contribution of all the predictor variables toward academic achievement.

specification equation was also derived for high school boys and girls, separately, in order to predict their academic achievement on the basis of their scores on the three motives, intelligence and background factors. Further, three-way analysis of variance was applied in a 3x3x3 factorial design with a view to study the interaction effect of achievement, affiliation and power motives on the academic achievement of high school boys and girls at high, average and low levels of each motive.

The results thus obtained were then presented and discussed.

7.2 CONCLUSIONS

On the basis of the results and the discussion thereupon, following conclusions were drawn which have been presented in three sections:

7.2.1 Related to Motive Inventories.

7.2.2 Related to the Three Motives.

7.2.3 Related to Academic Achievement and the Three Motives.

7.2.1 Related to Motive Inventories

1. The Achievement Motive Inventory developed in the present study contains 30 items each having two alternative forced choice type response. It has been found to be comprehensive, reliable and valid measure of achievement motive for Hindi speaking high school student population.

2. The Affiliation Motive Inventory developed, also consists of 30 items in the same format and has been found to be a comprehensive reliable and valid measure for assessing affiliation motive in Hindi speaking high school students.
3. The Power Motive Inventory too has 30 items with two alternative responses for each item. It is a fairly reliable and valid measure for measuring power motive among high school students in Hindi speaking belt of India.
4. All the three inventories have been standardized on class X students within the age range of 12 to 19 years and stanine norms have been developed for the same.

7.2.2 Related to the Three Motives

1. Achievement motive, affiliation motive and power motive are almost normally distributed in the high school students under study.
2. The present sample of high school students is relatively high on achievement motive, average on affiliation motive and below average on power motive in comparison to the general population.
3. High school boys and girls do not differ significantly with respect to achievement motive.

4. High school girls have significantly higher motive to affiliate than high school boys.
5. High school boys are significantly high on power motive in comparison to high school girls.
6. Achievement motive is significantly and inversely related to affiliation motive.
7. Achievement motive is significantly and inversely related to power motive.
8. There is no significant relationship between affiliation motive and power motive.

7.2.3 Related to Academic Achievement and the Three Motives

Correlational Analysis :

1. Achievement motive is significantly and positively related to academic achievement of high school boys and girls, both.
2. Affiliation motive is significantly and negatively related to academic achievement of high school boys whereas this relationship is not significant in the case of high school girls.
3. There is no significant relationship between power motive and academic achievement in high school boys or girls.

Multiple Regression Analysis :

1. In the case of high school boys, optimally 25.20% of the

variance in academic achievement is covered by the three motives, intelligence and background factors. Whereas in high school girls, only 13.10% of variance in academic achievement is accounted for.

2. Academic achievement can be significantly predicted with the help of scores on intelligence, achievement motive and to some extent, affiliation motive scores in high school boys. Whereas in high school girls it can be predicted with the help of intelligence and achievement motive only.
3. Maximum contribution to the variance in academic achievement is provided with scores on intelligence, achievement motive and affiliation motive in high school boys. Whereas with scores on intelligence, achievement motive, parents' income and their education in high school girls.
4. Minimum or negligible contribution to the variance in academic achievement is provided with scores on income, birth order and occupational level of parents in high school boys. Whereas with scores of affiliation motive, occupational level and number of siblings in high school girls.
5. Prediction of academic achievement of high school boys is helped by having high scores on achievement motive and intelligence, belonging to educated parents, coming

from upper income group and having a number of siblings at home. However, their academic achievement is hindered by having high scores on affiliation motive and power motive, belonging to parents of higher occupational level and being later borns amongst the siblings in the family.

6. Prediction of academic achievement of high school girls is enhanced by having high scores on achievement motive, power motive and intelligence, belonging to educated parents and being later borns in the family. The prediction is nevertheless hindered by having high scores on affiliation motive, belonging to parents of higher occupational level and upper income group.
7. In order to predict academic achievement in high school girls the direction of weights, though the magnitude differs are same as in high school boys for achievement motive, affiliation motive, parents' education, their occupational level and number of siblings at home. But the direction of weights on power motive, birth order and income of parents are just the opposite to that found in high school boys.

Interaction Analysis :

1. The academic achievement of high school boys and girls are significantly affected by their scores on high, average and low levels of achievement motive.

2. High average and low levels of affiliation motive significantly affects the academic achievement of high school boys. However, it does not affect so in high school girls' academic achievement.
3. High, average and low levels of power motive do not affect the academic achievement of either high school boys or girls significantly.
4. There is no significant interaction of high, average and low levels of achievement motive and affiliation motive; or achievement motive and power motive; or affiliation motive and power motive; or achievement motive, affiliation motive and power motive scores on the academic achievement of either high school boys or girls.

t-test Analysis :

1. High school boys and girls high on achievement motive have significantly higher mean academic achievement than those who are average in achievement motive; and low in achievement motive.
2. High school boys and girls average on achievement motive have significantly higher mean academic achievement than those who are low in achievement motive.
3. There is no significant difference between the mean academic achievement of high school boys having high affiliation motive from those average on affiliation motive.

4. There is no significant difference between the mean academic achievement of high school boys having average affiliation motive from those low on affiliation motive.
5. High school boys low on affiliation motive have significantly higher mean academic achievement than those who are high in affiliation motive.

7.3 IMPLICATIONS OF THE PRESENT STUDY

The findings of the present study have important implications for teachers and all those who are engaged in the gigantic task of bringing about the desired change in the standards of high school achievement. Differences in motivational styles observed for high achievers and low achievers lead to the conclusion that motives too should be used as predictors of academic achievement besides intelligence or previous academic records.

The results clearly indicate that achievement motive is very closely related to academic achievement. It paves the path for strengthening the will to achieve, thereby widening the horizon of the achieving process. Those high on achievement motive have shown to achieve high in school performance, even after partialing out the effect of intelligence. As such the problem of 'overachievement' and 'underachievement', which had intelligence as its very base should be looked into with a different perspective. Since achievement motive has been operationally defined in behavioral terms in the present

study, attempts may be made to consider and incorporate these characteristics when developing instructional programmes and strategies for high school students. Besides this the achievement motive has been shown to be largely acquired. McClelland and Winter (1969) have demonstrated that motivational changes can be introduced fairly easily by direct educational methods. As such, in addition to having remedial classes in different subjects for improving the level of achievement of low academic achievers in school, a single comprehensive Achievement Motive Development Programme can have an overall effect on improving their performance. By building the basic desire to achieve within the individuals, performance in different subjects can be enhanced, simultaneously. Thus economizing time and effort both.

Results on affiliation motive have shown that as the desire to affiliate increases within a student the level of performance at high school examination starts decreasing. Attempts should, therefore, be made to fulfil the affiliative desires of these students within the school premises itself so that they do not go haywire and waste time in other activities. This can be done by developing a we feeling, sense of belongingness and enabling the students to identify themselves with the school and the teachers. Close interpersonal relationship between students and teachers should be emphasized. Programmes and methods which make the students feel wanted, accepted and important in school should be

encouraged. Besides this, attempts should also be made to develop self-reliance and an independent outlook within the students. This can further be introduced in programmes being made to develop achievement motive for enhancing school performance, in order to make it more successful.

Findings on power motive though have not been conclusive, they do tend to open new avenues for further researches. As studies have shown that power motive is operative in academic situations where there is autonomy and independence, attempts can be made to study this motive in situations where there are no constraints on behavior or course deadlines, to see whether such an atmosphere will help the students who are high on power motive in improving their level of achievement or not.

The present investigation has further contributed three comprehensive standardized inventories for measuring the achievement motive, affiliation motive and power motive which can be suitably used for the explanation of these motives in school going population for different educational and research purposes.

7.4 SUGGESTIONS FOR FURTHER RESEARCHES

Research in any branch of human knowledge is never a closed chapter. There is always a need of finding solutions to new problems and testing the veracity of the solution to the older problems. In the light of the results, subsequent conclusions and experiences gained in the course of the study,

following suggestions may be made for further researches in this area.

1. Because of individual differences in arousal value of situations, this study may further be so planned as to bring within its purview the variations due to differences in schools, subjects offered and instructional styles also.
2. As the inventories have shown the multidimensional characteristic of these motives, attempts may be made to explore their nature further through factor analysis.
3. Research studies may cover other motives and variety of factors that can be important for the academic achievement process. Since it may not be feasible for one person to investigate all the probable factors several researchers may form a team and study different types of factors simultaneously in the same sample.
4. Longitudinal study may be made to investigate the change or permanence in these motives with the passing of time at different levels of intervening variables like sex, intelligence, socio-economic levels etc. and help in making more valid and proper generalizations.
5. Studies in this area may be done on different age groups also, so as to reduce the rate of dropouts in primary class students and give a purpose and direction to the college youth.

6. Research needs to proceed on the observation of change in relation of motives to achievement in special groups viz., delinquents, backward and the physically handicapped.
7. Similar studies may be replicated for cross validating the present results and have better generalization thereupon.
8. Specific programmes may be developed for fostering and enhancing the characteristics used for measuring the respective motives. The effectiveness of which may then be studied in a controlled experimental design.

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