CHAPTER VII
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SUMMARY, FINDINGS AND SUGGESTIONS

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7.01 SUMMARY

7.01.1 Introduction

Decision-making is a field of interest since the 18th century. Initially mathematicians and economists got attracted towards it and developed theories that could explain the choices made. They believed in the rationality of the decision-maker and presented the view that the choice would be made on the basis of maximum utility. They also assumed that the decision-maker is aware of all the possible alternatives and the decisions are transitive in nature, though, this is not the reality.

The choices are affected by the satisfaction derived, pleasure or social status obtained. Adair (1971) documented the study conducted by Rowe Alan in which he had asked 496 managers to rank the ten characteristics that were felt important for the decision-makers. Results showed that the ability to formulate problems correctly was ranked at the top of the list, whereas 'rationality' at the eighth. Thus, the necessity of theories that could be applied for solving problems of real world was felt strongly (Kozielecki, 1971; Matsubara, 1973 and Hollnagel, 1976). Secondly, it is a fact that decision-makers just do not have full knowledge of all the alternatives and their consequences.
The economic man's assumptions are normative. In reality, one deals with the environment where full knowledge or certainty is impossible. This is more so, in the present turbulent environment where continuous changes are taking place and new technologies are emerging rapidly.

A need of a good decision-maker who can -
- perceive the problems clearly and realistically,
- think of various alternatives,
- weigh them, and
- select a path of action -
is felt very strongly in every field of life. It is they who can shape their own future and also probably of Nation. Late Maharshi Karve, Dr. B.N.Ambedkar and many others were respected leaders because they could sense the requirements of the society, decided to make necessary progress and fought for them inspite of the abuses they received from people in the society.

As decision-making is a learned activity and can be mastered through experience, the training programmes were developed and proved successful especially for men in the industry and military. Further, the studies undertaken threw light on the successful training methods and factors to be considered while giving training.
7.01.2 Review of Literature

Some isolated studies have tried to locate the cognitive and non-cognitive factors of decision-making though, they fail to give the clear idea of nature of decision-making ability. The process of decision-making has been studied in relation to reversible and irreversible decisions, amount of available and relevant information, integration of information, manipulation of profit and loss, and time required to take a decision.

A sufficient number of studies are recorded about decision-making under the conditions of uncertainty and risk. Here, the gambling games, the skill chance games and the dice games were used. The guessing games and probability learning games were also considered. Riskiness of decision was studied with respect to confidence, group pressure, general incongruity adaptation level, importance of a decision and sex of the decision-maker etc. etc.

Few studies have dealt with decision-making of children. Since the skill of decision-making develops as one matures and participates actively in society, it is essential that the children get the opportunity to participate in decision-making quite often (McPartland, 1971). The children of 4 to 6 years of age also have been noticed to select the alternative of their own (Schubring, 1970). Wilkinson (1976) investigated the effect of real life problem-solving training upon real life problem-solving
ability of high school students. Miller, Tiedeman (1974) described a 9-week training programme for high school students. Concentration, curiosity, purposiveness, ability to solve practical problems were found to be influential factors in decision-making of children (Barber, 1968). A considerable number of studies have brought into notice the influence of family atmosphere on decision-making. The familial warmth (Swanson, 1974) and parents' active role in understanding their children (Atherton, 1976) influenced the decision-making of children in a great deal.

Risk taking behaviour was also studied with great interest. The superiority and the inferiority among the collective and individual risk-taking decisions (Kogan and Mallach, 1967), cohesiveness of the group affecting risky shifts (Dian, Hillar and Magnon, 1970) the relationship between riskiness of decisions and confidence (Strebe and Fraser, 1971), the sex of the decision-maker (Muldraw and Balton, 1979; Krishna, 1981) and decision-making of children under conditions of risk and uncertainty (Garg, 1984) were few of the recorded studies.

Recently, Indian researchers are taking interest in this field of study. Beginning with the study of process of decision-making (Kosal, 1970) and the farmer's patterns of decision-making process in using fertilizer and vegetable cultivation (Singh and Sinha, 1970), they have switched
over to vocational decisions or occupational decisions (Desai, 1972 and Desai, 1974). They also have realized that overdependency in Indian people resulting into inefficient decision-making have blocked their path of progress.

Thus, though a large number of studies have been undertaken since the 18th century, the nature of decision-making ability remained unidentified. Secondly no tool was ever constructed to assess this ability among children upto 1979. Russell and Roberts (1979) tried to measure the decision-making ability of the children in the age group of 9 to 10 years for the first time, with the help of two audio-taped stories - the problem situations.

7.01.3 **Present Study**

In the present study, efforts were made to identify the nature of decision-making ability in young adolescents and secondly to develop a tool that could assess the decision-making ability of young adolescents in social situations. While doing so, the researcher resorted to the process and also the factor approach at proper stages. The process of decision-making was taken into account while constructing the items; whereas for determining the factors of decision-making ability, the final test was correlated with other variables and the correlations were factorized.
7.01.4 Problem

The present study was undertaken to study individual decision-making ability in social situations among young adolescents. The work was done in two parts.

A. Constructing a tool for measuring decision-making ability of young adolescents in social situations.

B. Correlating various cognitive and non-cognitive factors with the decision-making ability as measured by the constructed tool and determining the nature of decision-making ability.

7.01.5 Method

A. Free narration method was followed to tap the universe of behaviour. The content analysis of data obtained with the help of 11 psychologists, 15 teachers and parents, and 140 children revealed that there are plenty of situations wherein the children have to take their own decisions.

Further, test specifications were arrived at with the help of youth leaders and teachers. The nature of item-form was finalised. In all 57 multiple-choice type items in Marathi were prepared on the basis of suggestions given by teachers from different schools. The data obtained with the help of 425 boys and girls were analysed to examine the difficulty level of items
and to get the item-test correlation. The readability was determined \((N = 73)\) and the time limit was set \((N = 45)\) separately.

The final version of the test was prepared into two parallel forms for sake of factor analysis each consisting of 24 items. The items were selected on the basis of item-analysis.

B. The survey was undertaken to locate the factors that could be correlated with decision-making ability. The relevant literature was studied and the resource persons were interviewed. It was followed by the selection of available tools measuring the desired variables. These included tests of mental ability, verbal and behavioural reasoning, personality questionnaires and adjustment inventories.

Two personality questionnaires were adapted to assess 11 personality characteristics whereas one questionnaire previously adapted was modified to assess two other personality traits. Two inventories were modified to throw light on the adjustment of the individual in Home and School.

The final forms of the test of Decision-Making ability constructed in the present study and the tools measuring in all 23 variables were administered to 96 boys and girls from a reputed school in Pune City.
7.01.6 **Statistical Analysis**

Appropriate statistics were used at different stages of construction of the test of Decision-Making and finally while determining the nature of measured ability. In that, comparison between boys and girls, between different schools and between 3 areas of the test were made before final selection of the items. The usual item statistics as-item-pass percentage, distractor strength and item-test correlation were used. The correlations between subtests added to the information with respect to homogeneity of the test.

'G' index of agreement was used to study the teachers' ratings for decision-making of extreme groups.

The Product-Moment coefficient was used for correlating 8 scores on decision-making with 23 other variables, after testing the skewness of all these variables.

The correlation matrix of 31 variables was further analysed by Principal Component Method.

7.02 **FINDINGS**

1. The efforts of constructing a tool that can measure the decision-making ability in social situations, were successful. The final version was prepared in a parallel form. Both these forms can be applied to boys
and girls of 12 years to 13 years and 6 months, from the different socio-economic classes.

These forms consist of 24 items each, belonging to three different areas - Home, School and Entertainment. Each form requires 25 minutes to complete it.

The test has been constructed in local vernacular language - 'Marathi' hence, it can be administered to and used by all those who can read and write Marathi.

2. No significant sex difference was found regarding the decision-making ability of children. This revealed that both boys and girls have equal potential for decision-making.

3. Intelligence was noted as positively and significantly related to problem understanding though not significantly with the selection of correct action.

4. The factor analysis revealed that the test measures decision-making ability distinct from other cognitive and non-cognitive traits. In fact, mere statistical exercise can not lead to the exact picture of the ability. It primarily depends on the content of the test. In the present study, Decision-Making ability consisted of -
   - accurate perception of the problem,
   - awareness of available information and making proper use of it,
   - tendency to face the situation,
- selection of appropriate course of action,
- awareness of implications of various alternatives,
and
- taking risk whenever required.

A test based on these considerations stood well in factor analysis. This implied the appropriateness of the variables included in the definition.

5. Decision-Making ability was positively influenced by personality variables such as - Emotional Stability, Adventurousness and Self-control; whereas it was negatively correlated with Rigidity, Assertiveness and Worrying. The individual's Adjustment at Home also affected his Decision-Making ability.

6. Verbal Reasoning and Decision-Making ability were significantly and positively correlated to each other but they were independent abilities.

7. One of the two tests measuring Behavioural Reasoning ability correlated positively with Decision-Making ability indicating that the ability to understand the relations between persons affects the decision-making ability.

8. The personality of a good decision-maker varied from that of a poor decision-maker.
7.03 SUGGESTIONS

The tool measuring the Decision-Making ability of children in social situations has been successfully prepared into two parallel forms having the positively significant correlation at .05 level between the two forms. The researcher however, was primarily interested in identifying the nature of decision-making ability and not in preparing two 'perfectly parallel' forms. Hence, some revisions may be essential to make it 'perfectly parallel'.

The content of the Test is mostly culture-fair though it is constructed in 'Marathi' language. Hence, the translation and adaptation may be undertaken.

The Test should be administered to a larger group for establishing norms. The norms would enable one to locate good and poor decision-makers and guide the poor ones accordingly.

The agreement among the previous investigators pointed out that this ability could be developed and mastered through experience. This was also observed in the obtained data of the present study. The school for the gifted provided special attention towards children, made them aware of problems, taught them to face and overcome the problems and also provided them an opportunity to practice what they learnt. In the Exploratory Study, the students from this
particular school performed better than the others. This substantiates the use of training programmes for training and development for the young adolescents.

The researcher had conducted a few experiments in this direction which are not noted in the present study. As the need for training was cognized, she prepared two programmes for Vth and VIIth std. boys and girls, spaced over four months, containing 16 sessions. The programme for the Vth std. emphasized the 'Attitude Formation' while that of VIIth std. emphasized the 'Thinking Process'. Though the results are awaited, the study suggested possibility and utility of such training programmes. These training programmes would be helpful to produce efficient decision-makers which is a genuine need of the day.

It was also found that decision-making ability was not situation-specific. It being a rather general ability, can be exercised in different areas e.g. Home, School and Entertainment with more or less equal facility. This fact suggests that it is transferable and increases the utility of training.

The obtained results pointed out that boys and girls do not differ in their decision-making ability. In reality, however, it is felt and emphasized that boys are better decision-makers than girls. Some of the investigators also have noted the sex differences on decision-making among
adults in favour of males. This must be the effect of family training and expectations about male and female roles in a male dominated society. Here, the researcher would like to point out that parents should give equal opportunity to practice the skills in decision-making, no matter whether it is a boy or a girl. They do possess equal potential to achieve proficiency in decision-making but at the same time they require sufficient practice and their own active participation. So, if the children do not show interest in decision-making, they should be motivated to do so and if they show their willingness, they should be welcomed wholeheartedly.

The researcher felt that a few more problems were worth studying though, it was not possible in the present work.

A developmental study, if undertaken, will be helpful to throw light on - how the age of the decision-maker affects his decision, and at what age training would be the most effective.

The present ever-changing and competitive world demands co-working to provide better results. Japanese people have recognized this and have developed successful systems to meet the challenges of world. It would be really worthwhile to
study efficient ways of working and decision-making in a group - especially among the Indian people.

A study to reveal the nature of decision-making ability in an emergency situation also could be undertaken.

The present study was successful in identifying the nature of decision-making ability in social situations among the young adolescents but it's a maiden effort. It further demands deeper attention from the parents, psychologists and the educationists for its wider application in the Training of the young ones - boys and girls alike - with a positive hope for the 'Better Tomorrow'.

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