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AN EMPIRICAL STUDY ON PROBLEM SOLVING SKILLS OF THE JOB SEEKERS WITH PARTICULAR REFERENCE TO THE FINAL YEAR ENGINEERING STUDENTS OF MAM GROUP OF INSTITUTIONS, TIRUCHIRAPPALLI

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Abstract:

In times of rising globalization and technological advances, many problems humans have to face in day by day life are pretty complex, involving various goals as well as many potential actions that could be measured, each connected with several different and uncertain consequences, A alarming paradox is growing and there is a need for a tripartite association between policymakers, universities and employers. The main aspire of the study is to study the level of problem solving skills among MAM- CE, MAM- CET and MAM- SE college students in Tiruchirappalli District, Tamilnadu. The objectives are: To study the socio – economic background of the respondents, to study the problem solving skills. The researchers used stratified proportionate random sampling method using Table method to select 626 respondents from 1424 for the present study and the study is descriptive in nature. This study was conducted in MAM- CE, MAM- CET and MAM- SE college students, Tiruchirappalli District, Tamil Nadu. The information related to the present study was collected through structured interview schedule. The interview schedule consists of different parts namely, socio demographic profile, the personal information which includes age, gender, caste, educational qualification. The sub-scale of problems solving in Indian Adaptation of Career Maturity Inventory competency testing (Nirmal Gupta, 1989) scale was used.

Key Words: Problem Solving, Decision Making, Training, Knowledge Acquisition & Knowledge Application

1. Introduction:

In times of growing globalization and technological advances, many problems human have to face in day by day life are pretty complex, involving manifold goals as well as many potential actions that could be considered, each connected with several diverse and uncertain consequences, in atmospheres that may change vigorously and independent of the problem solvers' actions (Funke, 2003). In order to solve compound problems, people usually have to obtain and to apply knowledge about complex systems concerning the systems' structure and dynamics (Funke, 2001). Human problem solving focused on interviewing experts of certain knowledge domains, on studying the possessions of expertise on problem solving activities and decision making, or on simulating complex problems based on real systems humans could have to deal with in their daily lives.

Decision making strategies are containing feasible strategies and heuristics for (a) generating relevant information and (b) creating high-quality forecasts and decisions in composite environments. When the ambition is to spell out an input or a sequence of inputs in order to normalize certain output-variables of a complex system, each potential input direction can be measured an *option*, with several probable

consequences. Each consequence may have a prejudiced *utility* and a probable *probability* precise to the existing framework. In compound scenarios there seldom can be a comprehensive estimate of all probable options and their weighted consequences (due to time pressure and the tremendous amount of variables. Instead, decisions have to be based on strategies using less information.

2. Review of Literature:

Bethencourt et al., (2011) made a study on "Personality and career decision making in undergraduates". The objectives of this research are to exhibit, on the one hand, that the competent personality of university students is connected with more grown-up career decision-making and, on the other, explore the possible continuation of differences in the competent personality among the five professional groups of undergraduates (cultural, bio-sanitary, experimental, education-welfare and socio-economic features). The hypothesis is that competent personality is connected with the more mature process of career decision making. For this hypothesis, the Questionnaire of competent Personality and the Inventory of Career Factors was managed to 497 students in their final year of undergraduate school. The composed data was put under factorial analysis, analysis of differences of averages, and analysis of variance. The outcome confirm that an competent personality is tied to career decision making based as much on one´s knowledge of oneself as an sympathetic of the running world.

Andreas, Fischer (2012) wrote an article on the Process of Solving Complex Problems. This article is concerning Complex Problem Solving (CPS), its history in a diversity of research domains (e.g., human problem solving, expertise, decision making, and intelligence), a formal explanation and a process theory of CPS applicable to the interdisciplinary field. CPS is portrayed as (a) knowledge attainment and (b) knowledge submission regarding the goal-oriented control of systems that contain many exceedingly interrelated elements (i.e., complex systems). The impact of implied and explicit knowledge as well as methodical approach selection on the result method are discussed, emphasizing the significance of (1) information generation (due to the initial in transparency of the circumstances), (2) information reduction (due to the overcharging complication of the problem's structure), (3) model building (due to the interconnectedness of the variables), (4) dynamic decision making (due to the Eigen dynamics of the system), and (5) evaluation (due to many, interfering and/or ill-defined goals).

3. Materials and Methods:

The main aim of the study is to study the level of problem solving skills among MAM- CE, MAM- CET and MAM- SE college students in Tiruchirappalli District, Tamilnadu. The objectives are: To study the socio – economic background of the respondents, to study the level of problem solving skills. Research Hypothesis: (i). There is a significant difference between the mark percentage of the respondents and their overall problem solving skills. (ii). There is a significant variance between native of the respondents and their overall problem solving skills. (iii). There is a significant association between religion of the respondents and their overall problem solving skills. (iv). There is a significant association between the money spent on magazine and their overall problem solving skills. So the total final year students 1424 are the universe of the study. The researcher used Krejcie & Morgan 1970 Table method in selecting the simple for the present study. The total sample is 626. And the study is descriptive in nature. This study was conducted in MAM- CE, MAM- CET and MAM- SE college students, Tiruchirappalli District, Tamil Nadu. The information related to the present study was collected through structured interview schedule. The interview schedule

consists of different parts namely, socio demographic profile, the personal information which includes age, gender, caste, educational qualification. The sub-scale of problems solving in Indian Adaptation of Career Maturity Inventory competency testing (Nirmal Gupta, 1989) scale was used.

4. Result and Discussion:

A. Socio-Demographic Findings: The age of the respondents ranges from 19 years to 24 years. The descriptive analysis reveals that 486 (77.6%) respondents belong to the age group of 21 to 22, 115 (18.3%) respondents belong to the age group of 19 to 20 years & 15(4.1%) belongs to the age group of 23 to 24 years (Table 1 and S. No 1). With regard to the religion of the respondents it was noted that vast majority were Hindus 497 (78.9%), Muslim 95 (15.2%) while Christians were very meager 37 (5.9%) (Table 1 and S. No 2) and 500 (79.9%) were from nuclear family and remaining 126 (20.1%) were from joint family (Table 1 and S. No 3). Considering the locality of the respondents 252 (40.3%) were from semi urban and 238 (38 %) were from rural (Table 1 and S. No 4). Nearly two third of the respondents 440 (70.3%) were obtained 60 to 79 % marks, 72 (11.5%) were poor getting only 0 to 49 % while 40 (6.4%) were obtaining 80% and above marks (Table 1 and S. No 5). One fourth 171 (27.3%) of the respondents monthly income were between Rs. 5000 to 10,000/-, 73 (1.5%) were having less than Rs. 5000/- and only 53 (8.5%) were having more than Rs. 50,000/-(Table 1 and S. No 6). Majority of the respondents 513 (81.9%) spend less than Rs. 50/- for the newspapers and magazines and only 113 (18.1%) spend more than Rs. 50/- (Table 1 and S. No 7). The figure 1 indicated that 396 (64%) of the respondents were having low level of Problem solving skills and only 230 (36%) were having high level of problem solving skills.

B. Analytical Findings: Results of the One-Way Analysis of Variance showed that the marks obtained in the exams was not significant, F (3,622) = 1.644, p = .178 (Table 2) with regard to problem solving skills. One-Way Analysis of Variance showed that the native was significant, F (2,623) = 4.359, p = .013 with regard to problem solving. Post hoc analyses using the Scheffé post hoc criterion for significance indicated that respondents who were from semi-urban were having higher level of problem solving skills (M = 43.10, SD = 11.29) than other groups such as urban (M = 40.80, SD = 10.71), rural (M = 40.45, SD = 9.49), F (2,623) = 4.359, p = .013 (Table 3). The earlier study by Bethencourt (2011) on "Personality and career decision making in undergraduates" also coincided with the present study. Besides, it also pointed out the significant improvement of the problem solving development of the students, who increase their association with modern with the world. Chi-square Results showed no statistically significant difference in the level of problem solving skills among the three types of religions. It was realized that the different type of religion did not influence the problem solving skills of the respondents (Table 4). Chi-square results showed statistically significant association in the level of problem solving skills among the money spent on magazines. It was realized that the money spent on magazine did influence the problem solving skills of the respondents (Table 5).

5. Suggestions:

- ✓ The research revealed that most of the respondents are only average in their problem solving skills, therefore it is suggested that regular programmes at College should be held by the training and development team in order to improve the level of problem solving skills thereby developing superior performance at College and work place in future.

- ✓ Open session within every department can be made as a regular practice every week to know and understand the views of the students. Now and then having regular problem solving exercises among the students.
- ✓ For better managerial climate and culture, the College must start hiring highly talented and matured persons and must develop the level of problem solving skills among the students, thereby enabling them to face and overcome tremendous challenges in life.
- ✓ Problem solving skills has gained good recognition among the individuals, but still the awareness level among all the students should be increased.

6. Implications and Conclusions:

The present study has produced some important results that have implications for both research and practice. The study on problem solving skills among job seekers with special reference to MAM- CE, MAM- CET and MAM- SE college students in Tiruchirappalli District, Tamilnadu is identified as they are not able to manage their problems, which has a direct impact on their study and job opportunities. Further, the level of problem solving skills and performance level of the students is moderate to low and these skills are to be developed for achieving higher efficiency and to enhance the future job opportunity. This has implications for management, suggesting that College could be productive by identifying the level of Problem solving skills of staffs and students and apply interventions that are focused on the developing problem solving skills among them.

7. References:

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8. Appendix:

Table 1: Personal characteristics of the respondents

S. No	Personal Character	Variables	n :626	%
1	Age	19-20 years	115	18.3
		21-22 years	486	77.6
		23-24 years	25	4.1
2	Religion	Hindu	494	78.9
		Muslim	95	15.2
		Christian	37	5.9
3	Type of family	Joint family	126	20.1
		Nuclear family	500	79.9
4	Nativity	Rural	238	38.0
		Semi-Urban	252	40.3
		Urban	136	21.7

5	Marks obtained	0-49%	72	11.5
		50-59%	74	11.8
		60-79%	440	70.3
		80 and above	40	6.4
6	Father's monthly income	More than Rs.50,000	53	8.5
		Between Rs.30,001 and Rs.50,000	94	15.0
		Between Rs.15,001 and Rs.30,000	100	16.0
		Between Rs.10,001 and Rs.15000	135	21.6
		Between Rs.5001 and Rs.10,000	171	27.3
		Rs.5000 or less	73	11.7
7	Money for magazine and papers	More than Rs.50	113	18.1
		Between Rs.31 and Rs.50	82	13.1
		Between Rs.15 and Rs. 30	157	25.1
		Below Rs. 14	171	27.3
		Not spending	103	16.5

Table 2: One-Way Analysis of Variance of among marks obtained with regard to the level of problem solving skills

Problem solving skills	df.	SS	MS	F	P
Between Groups	3	549.129	183.043	1.644	.178
Within Groups	622	69271.620	111.36		
Total	625	69820.749			

Table 3: One-Way Analysis of Variance of among native with regard to the level of problem solving skills

Problems solving skills	df.	SS	MS	F	P
Between Groups	2	963.510	481.755	4.359	.013
Within Groups	623	68857.239	110.525		
Total	625	69820.749			

Table 4: Results of Chi-square Test for problem solving skills by the respondents' type of religion

Problem solving	Religion			
	Hindu	Muslim	Christian	Total
Low	312	65	19	396
High	182	30	18	230

$\chi^2 = 3.349$, df. = 2. $p > .05$

Table 5: Results of Chi-square Test for problem solving skills by the respondent's spending money on magazines

Problem solving	Money on magazines					
	More than Rs. 50	Rs. 31-50	Rs. 5 -30	Below 14	Not spending	Total
Low	68	48	101	116	63	396
High	45	34	56	55	40	230

$\chi^2 = 8.062$, df. = 2. $p < .05$

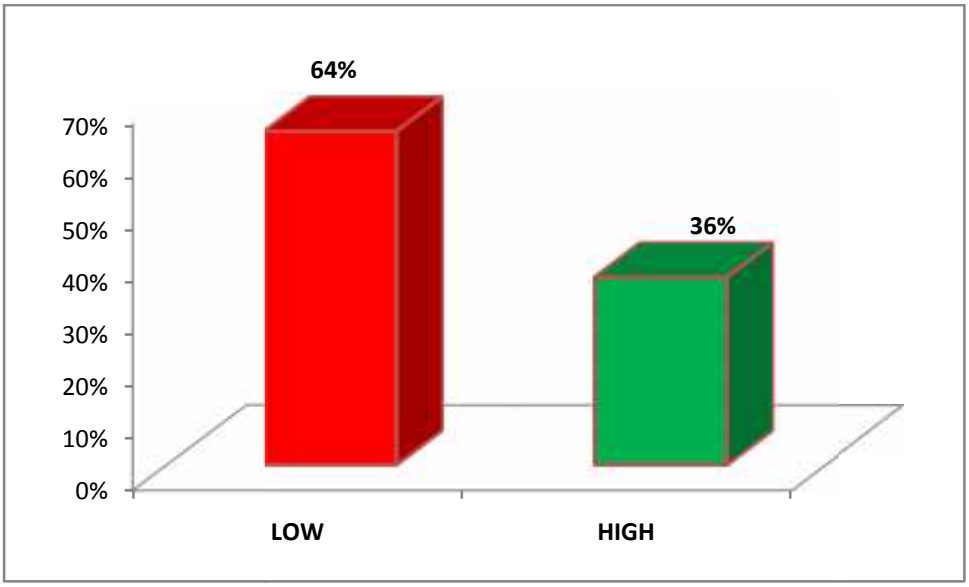

Figure 1: The level of problem solving skills of the respondents.