



DECISION MAKING STYLES AND STUDY ORIENTATION

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Abstract:

The present study is an attempt to study the relationship of Study Orientation (Study Habits and Attitudes) with decision making styles among higher secondary students. Survey of Study Habits and Attitudes (SSHA) developed by Brown and Holtzman (1967) and Flinders Decision Making Questionnaires I and II (DMQ-I and DMQ-II) developed by Mann (1982) were used to collect data. As large as 148 Higher Secondary Students pursuing the first year study of Higher Secondary Course (HSC) participated in this study. There were 75 males and 73 females. Results reveal that there is significant positive correlation between study orientation and decision self-esteem of students. Also, there is significant association between students' study orientation and their decision making styles. This association is reflected only in non-vigilant decisions but not in vigilant decisions. Gender effect in Study Orientation was observed favouring female students. Demographic variables like, course of study (arts/science), family income, number of family members, birth order and their residence do not have any effect on their study orientation. The results are interpreted in terms of the role of schools in teaching good study habits to students thereby enhancing their decision self-esteem and reducing their defensive avoidance, buck passing and procrastinating tendencies.

Keywords: decision making, study orientation, study habits

Introduction

Now-a-days students feel proud of scoring high marks in State Board examinations. The state level top scorers are awarded with gold medals and cash awards by both government and NGOs. So there is a high competition among private and government school administrations to reach the top level score in the State Board examination to

prove the quality of education provided in their schools. Above all, high scores enable the students to get an admission in the desirable course and continue their higher studies. So it also gives immense happiness to the teachers and the parents. However, students cannot score high marks unless they follow a systematic approach in preparing their lessons for the examination. This systematic approach is their study habit. The study habit stems from their study attitudes. So study habit and study attitudes are two important factors contributing to the grand success in their academic performance. Both study habits and attitudes together termed as Study Orientation.

Higher secondary students are in a critical stage for two reasons. Both the individual and the course itself are in transition. The higher secondary students are in adolescence stage. The adolescence is a stage of transition where the individual moves from childhood to adulthood. The course itself is critical because only after completion of this course the students could go for higher educations. In this sense this stage possesses an ample inherent importance in determining one's future career. Students who come up with flying colours in the State Board examination have the opportunity for better career. Students who perform poorly in this examination struggle much in finding their career. In order to help the students for their bright future, apart from teaching the subject matter, the teachers may teach the students proper study habits. Teaching how to study is more important than teaching what to study. A proper study habit will naturally lead to better academic performance in State Board Examinations. It becomes necessary to understand study habits and attitudes of adolescent students and the factors associated with them. So the present study is conducted to understand the study habits of adolescent students. Study habits are systematic approach or strategies for studying the lessons.

Selecting a strategy is a decision. Study habits of students are in fact the decisions made by the students. So there may be relationship between study habits and their decision making styles. Hence the present study is attempted to find out the relationship of study habits and attitudes with that of students decision making styles. The knowledge of this relationship would help the teachers for guiding and counselling the students for their prosperous future.

Method

Sample

The sample comprised of 148 Higher Secondary students (75 males and 73 females) pursuing their first year study of Higher Secondary course (HSC) in two non-residential Government schools situated in the sub-urban area of Pondicherry UT, in South India. One is boys' School (N=75) and the other one is girls school (N=73). Their age ranged

between 15 and 20 years with mean of 17 years ($SD=0.951$). They belong to Arts ($N=70$) and Science ($N=78$) disciplines.

Tools

Survey of Study Habits and Attitudes (SSHA) developed by Brown and Holtman (1967) was used to assess the study habits and attitudes of students. Flinders decision making questionnaire-I and II (DMQ-I and II) were used to measure the level of decision self-esteem and various decision coping styles respectively.

SSHA assess the study habits of students in four dimensions viz. Delay Avoidance (DA), Work Methods (WM), Teacher Approval (TA) and Education Acceptance (EA). Delay Avoidance (DA) is Students' promptness in completing their academic assignments, lack of procrastination, and freedom from wasteful delay and distraction. Work Methods (WM) is students' use of effective study procedures in doing academic assignments and how-to-study skills. Teacher Approval (TA) is students' opinion of teachers and their class room behaviours and methods.

Education Acceptance (EA) is students' approval of educational objectives, practices and requirements. Study Habits (SH) combines the scores on the DA and WM scales to provide a measure of academic behaviour of the student. Study Attitude (SA) combines the scores on TA and EA scales to provide a measure of scholastic beliefs. Study orientation (SO) combines the scores on SH and SA scales to provide an overall measure of study habits and attitudes.

DMQ-I measures the level of decision self-esteem and DMQ-II assesses the decision making styles in six dimensions viz. Vigilant, Hyper vigilant, Defensive avoidance, Rationalization, Buck passing and Procrastination. The author of the Flinders Decision Making Questionnaires I and II (DMQ-I and DMQ-II), operationally defined the decision making styles as follows:

Decision self-esteem is somewhat the consistent sense of personal worth in making decisions. **Vigilance** is the tendency to search carefully for information, to consider many alternatives, to consider information without bias, and to evaluate alternatives carefully before making a choice. **Hyper vigilance** is the tendency to make decisions impulsively and to look for quick, easy solutions to problems. **Defensive avoidance** is the general tendency to try to avoid or escape from having to make a decision. **Rationalization** is the tendency to avoid reality of decisions. This is achieved by ignoring or denying unpleasant aspects of the decision or by concentrating only on the positive aspects of the choice. **Buck passing** is the tendency to leave the hard decisions to others, to avoid taking responsibility for decisions and to blame others when the decision is wrong. **Procrastination** is the tendency to put off making decisions by doing other things or by thinking about it for too long (Mann, 1982).

Procedure

The tools SSHA, DMQ-I and DMQ-II were printed in the form of booklet. They were distributed to the students during the normal class session and the students were requested to give their responses. There were at least 70 students in the group during data collection process. Instructions were given whether how to give their responses.

The students were informed about the purpose of the study. The students were seated in a well-lighted and ventilated class room and they felt relaxed while responding the questionnaires.

Demographic information pertaining to gender, course of study, number of family members, monthly family income, birth order and their residence were also collected at the time of data collection. The data obtained were treated statistically.

Results and Discussion

In order to understand the general nature of the sample with the regard to study habits and attitudes and the decision making styles the scores of SSHA and DMQ-I and II are subjected to descriptive statistics. The results are presented in the following two tables.

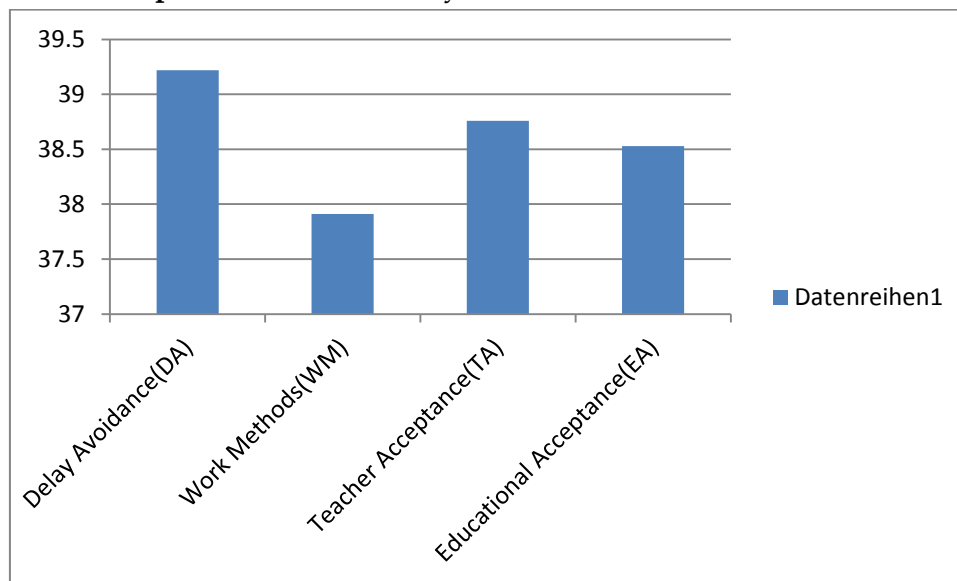
Table 1: The descriptive statistics of the scores on study orientation

Dimensions of study orientation	Males (N=75)		Females (N=73)		Total (N=148)	
	Mean	SD	Mean	SD	Mean	SD
Delay Avoidance (DA)	38.43	4.46	40.04	3.83	39.22	4.23
Work Methods (WM)	37.01	3.73	38.83	3.65	37.91	3.79
Teacher Acceptance (TA)	38.11	4.29	39.44	4.09	38.76	4.23
Educational Acceptance (EA)	38.36	3.47	38.70	3.21	38.53	3.34
Study Habits (SH)(DA+WM)	75.44	7.66	78.88	6.62	77.14	7.35
Study Attitudes (SA)(TA+EA)	76.47	6.77	78.04	6.59	77.24	6.71
Study Orientation SO)(SH+SA)	151.91	12.79	156.92	11.40	154.38	12.34

The mean of Study Habit scores is 77.14 (SD=7.35) and the mean of Study Attitude scores is 77.24 (SD=6.71). The mean of study habit scores and study attitude score are nearly equal. The scores of Study Orientation are obtained by summing up the scores of study habit and study attitude. The mean of Study Orientation scores is 154.38 (SD=12.34).

The following graph shows the level of study habits and attitudes of students.

Graph 1: The level of study habits and attitudes of students



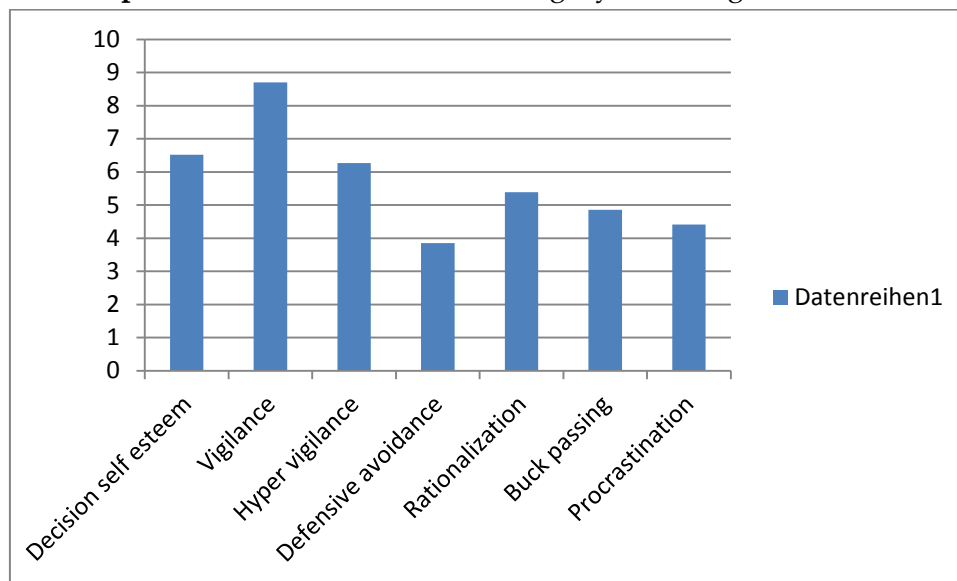
From the graph it clear that among the study habits the level of delay avoidance is more when compared to work methods. The graph suggests that there is higher tendency among the students to delay or postpone their school works.

Table 2: The descriptive statistics of scores on DMQ-I and II

Dimensions of DMQ-I and II	Males (N=75)		Females (N=73)		Total (N=148)	
	Mean	SD	Mean	SD	Mean	SD
Decision self esteem	6.41	2.08	6.63	2.28	6.52	2.18
Vigilance	8.43	2.58	8.97	1.89	8.70	2.28
Hyper vigilance	6.36	1.91	6.18	1.82	6.27	1.86
Defensive avoidance	3.89	1.78	3.81	1.47	3.85	1.63
Rationalization	5.48	2.04	5.29	1.81	5.39	1.93
Buck passing	4.85	1.94	4.86	2.09	4.86	2.01
Procrastination	4.60	2.21	4.21	2.02	4.41	2.12

The mean of decision self-esteem scores of the sample is 6.52 (SD=2.18). The mean score of the sample in vigilance decision making style is 8.70 (SD=2.28). This mean is higher than the mean scores of all the non-vigilant decision making styles i.e. hyper vigilant (6.27), defensive avoidance (3.85), rationalization (5.39), buck passing (4.46) and procrastination (4.41).

Graph 2: The level of decision making styles among the students



That is vigilant decision making style is the predominant decision coping pattern of the students. So we understand that the students in higher secondary classes have developed vigilant decision making skills. As these students have crossed childhood and entered into adolescence they could have developed sophisticated ways of thinking and solving problems. They may collect more information and consider many alternatives before solving a problem. However some levels of non-vigilant tendencies are also present. Among the non-vigilant decision making styles, the sample scored higher in hyper vigilant style.

The relationship of decision making styles with study orientation

Janis and Mann (1977) arrived at that during conflicting situations individuals cope with two major types of decision coping styles viz. vigilant decision making style and non-vigilant decision making style. Non vigilant decision making style takes form in five different modes namely hyper vigilant, defensive avoidance, rationalization, buck passing and procrastination. According to Mann decision self-esteem plays rather consistently a mediating effect in determining the decision coping pattern adopted. Studies reveal that vigilant decision making is quality decision making process (Burnett et.al.1989) and it involves a 'high quality of information processing' (Cheryl Ormond et. al.1991).

The present study is an attempt to find out whether there is any significant relationship between the decision making styles of students and their study orientation. Correlation method was adopted to find out the relationship between decision making styles and study orientation scores. The results are presented below.

Table 3: The correlation coefficients between study orientation and decision making styles scores

	DA	WM	SH	TA	EA	SA	SO
Decision self esteem	0.292**	0.161	0.251**	-0.038	0.145	0.039	0.171*
Vigilant	0.062	0.107	0.091	-0.004	0.014	0.012	0.061
Hyper vigilant	-0.111	-0.162*	-0.148	-0.047	-0.083	-0.076	-0.129
Defensive avoidance	-0.210*	-0.300*	-0.276**	-0.185*	-0.154	-0.196*	-0.271**
Rationalization	-0.097	-0.161	-0.139	-0.117	-0.047	-0.092	-0.132
Buck passing	-0.348**	-0.391**	-0.402**	-0.318**	-0.201*	-0.296**	-0.400**
Procrastination	-0.288**	-0.343**	-0.343**	-0.260**	-0.281**	-0.309**	-0.372**

*P<0.05 **P<0.01 N=148

It is observed from the table that there is significant positive correlation between decision self-esteem and study orientation($r=0.171$; $p<0.05$). That is students with high self-esteem as a decision maker have a better study orientation. However, contrary to our expectation, it was found that there is no significant positive correlation between vigilant decision making and study orientation. But as expected, there was significant negative relationship between non-vigilant decision making styles and study orientation. Students' study orientation is associated with their Non-vigilant decision coping styles like defensive avoidance, buck passing and procrastination. The result implies that students' defensive avoidance, buck passing and procrastination tendencies lead to poor study orientation. The state level top rank holders in the State Board Examination, when interviewed, consistently say that they study their lessons daily without postponing. This reveals that they do not avoid or buck pass or procrastinate their educational activities.

The result suggests that students study orientation is affected when they avoid educational challenges in schools. In order to improve the study habits and attitudes of students, they could be taught to reduce their avoidance tendencies. As there is positive relationship between decisions self-esteem and study orientation, students' decision self-esteem may be enhanced so as to reduce their avoidance tendencies.

The teachers can break the vicious cycle of failure by allowing the children to experience success in the class. It has been proved that self-esteem and, motivation and consequently the performance of children increase dramatically when they are given tasks they feel are attainable, enjoyable and worthwhile. Teachers can engineer this quite simply by being flexible. They can break down difficult tasks into a series of more manageable ones for some children and by raising the difficulty level to keep the challenge alive for others. This kind of strategy will help the children to learn the habit of facing the challenges without avoiding or postponing. Above all, a dislike or

avoidance for school can be the tragic fallout of harsh punitive measures adopted by teachers by hurtful and sarcastic comments made by them and often by the terrible neglect of children that occurs in the very place where they should be nurtured and encouraged - the classroom. Teachers can show love and respect towards the students and must be impartial with them. An old saying goes 'the mother is the first teacher and the teacher is the second mother'. Teachers must not underestimate the enormous power they have in helping children perform to their full potential.

Effect of demographic variables on study orientation

The effect of some demographic variables on study orientation is also studied in the present study. The study orientation scores of the students are classified on the basis of gender, course of study, number of family members, family income, birth order and residence. The t-test and ONE WAY ANOVA were conducted to compare the means. The results are as follow.

Table 4: The results of t-test

	N	Mean	SD	SEd	t-value	Level of significance
Males	75	151.91	12.8	1.99	2.514	0.05
Females	73	156.92	11.4			
Science students	78	153.78	12.28	2.04	-0.619	NS
Arts students	70	155.04	12.46			
Up to 5 members	79	153.09	11.93	2.03	-1.36	NS
More than 5 members	69	155.86	12.72			
Low income group	96	153.90	12.20	2.13	-0.645	NS
High income group	52	155.27	12.67			

Effect of gender on study orientation

Linton, (1945) opined that the division of societies into age-sex categories is perhaps the features of greatest importance for establishing participation of the individual in culture. So the effect of gender on study orientation is examined in the present study. From the table it is understood that the mean of males in study orientation is 151.91 and the mean of female students is 156.92. Female students scored more on study orientation than male students. This difference is significant at 0.05 level. So there is evidence that female students follow a better study habits when compared to males. In a separate analysis it was found in this study that female students scored higher GPA (Mean=286.01; SD=55.21) when compared to male students (Mean=269.32; SD=43.86)

($t=2.040$; $df=146$; $p<0.05$). High GPA of girl students may be due to their better study orientation. These results show that now-a-days female students are highly motivated academically when compared to male students. This result found support from Tamilnadu State Board examination results wherein the girl top scorers outweigh the boy top scorers and also the pass percentage of girls is higher than the pass percentage of boys in the state for the past several consecutive years.

Puducherry is a Union Territory in South India. This region is embedded in the state of Tamilnadu which is the southernmost state of India. Puducherry is a separate administration from Tamilnadu and it does not have an Education Board of its own. It follows the educational system of Tamilnadu. The students of Puducherry take the same public examination that Tamilnadu State Board conducts to Tamilnadu students. So, even though the study was conducted in Puducherry, the result reflects the condition prevailing in the whole of Tamilnadu, South India.

Effect of course of study on study orientation

Arts and Science are the two major courses of study offered to students at higher secondary level. The students of science stream study subjects like Mathematics, Physics, Chemistry, Botany, Zoology etc. and students of Arts stream study subjects like commerce, Economics, Accountancy Political science, History etc. The nature of the subjects taught in science courses are different from the subjects taught in arts course. Mainly science students are required to do science practical works. So science students must do little more additional work which is not required in arts disciplines. Therefore the study habits of science students may differ from arts students. In order to find out whether there is any difference in the study orientation of science and arts students empirically the study orientation scores of arts and science students' are compared through t-test. The obtained t-value is -0.619. It is not significant. This result shows that there is no evidence that science and arts students differ in their study orientation.

Effect of family members on study orientation

It was felt that with increase in the number of family members there is increased probability to guide the students towards their study habits by the elders in the family. In such case there may be some impact of the family members on the study orientation. More number of children in the family increases the likelihood of forming small study group and discusses their scholastic problems or elders to advise them academically. So there is a chance that number of family members would influence the study habits of the students. This assumption is tested empirically through t-test. In this study it was

obtained that the range of family members is 2 through 12. The whole sample was divided into two groups on the basis of the number of family members viz. families having up to 5 members and above 5 members, number 5 being the median value. The study orientation scores of students coming from families having 5 or below five members and students coming from families having above 5 members are compared through t-test. The results of t-test reveal that the obtained t-value ($t=-1.36$; $p>0.05$) is not significant. So there is no evidence that number family members influence the study orientation of students.

Effect of family income on study orientation

With increase in family income there may be many facilities for the students to study. But it is not possible for students' with low family income. So their study orientation may differ. In order to test the relationship between family income and study orientation data regarding the monthly income of the family was obtained from the students. The range of the income was Rs.2400 to Rs.25000. Keeping the mean (Rs.6200) as the dividing line the whole sample was bifurcated into two groups viz. low income group ($N=96$) and high income group ($N=52$). The study orientation scores of students with high family income and low family income was compared through t-test. The result showed that the obtained t-value ($t= -0.645$; $p>0.05$) is not significant. So there is no evidence that the family income does influence the study orientation of students. This result implies that students coming from low income families and high income families can adopt better study habits and attitudes. Accordingly every year it was found that some of the state level rank holders in the State Board Examinations come from very poor economic background.

Effect of birth order on study orientation

Individuals differ in their psychological constructs on the basis of their birth order. Studies reveal that first borns tend to conform to adult standards (Hilton, 1967) and to the social pressures (Sampson, 1967) when compared to later borns. George et. al. (1975) reported the influence of birth order on Extroversion and Vithal Rao Yadav (1988) reported that birth order influences on Neuroticism.

It was felt that this difference on the basis of birth order would reflect on their study orientation. So attempt was made in the study to find out whether students differ in the study orientation on the birth order position. The students were classified under three categories viz. first borns, second borns and later borns. The scores on the study

orientation of these groups are compared through ONE WAY ANOVA. The results are presented here under.

Table 5: The Means, SDs, SEMs for the three levels of birth order groups on study orientation

sl.no	Birth order Groups	N	Mean	SD	SEM
1.	1 st Borns	41	154.66	12.08	1.89
2.	2 nd Borns	31	152.94	12.28	2.21
3.	Later Borns	76	154.82	12.62	1.45

The ONE WAY ANOVA procedure yielded an F value of 0.268(df=2,145, $p>0.05$). It is not significant. Hence it was concluded that students do not differ in their study orientation on the basis of their birth order.

Effect of residence on study orientation

The residence of the students differs. Some students come from urban areas and some students come from rural areas. But some students come from areas which are neither urban nor rural that is sub-urban. It was decided to find out whether students residing in urban areas differ from rural areas with regard to their study orientation. The study orientation scores of students coming from urban, rural and sub-urban are compared through ONE WAY ANOVA. The results are presented hereunder.

Table 7: The Means, SDs, SEMs for study orientation scores of students coming from urban, rural and sub-urban

sl.no	Residence	N	MEAN	SD	SEM
1.	Urban	32	154.53	14.23	2.52
2.	Sub-urban	80	153.75	12.13	1.36
3.	Rural	36	155.64	11.21	1.87

The obtained F value is 0.291(df=2,145; $p>0.05$). It is not significant. Hence it was concluded that whether the students come from urban or rural, either of the environment do not influence their study orientation.

All the results lend support that family environmental condition does not influence the study orientation. So the only place where they could learn their study orientation is the class room. School teachers must know the facts regarding the study habits and attitudes of students and make aware of the students about their study orientation. At least students must be motivated (Molcom Bond, 1981) not to avoid the

challenges in schools but to face it confidently. They may be taught not to avoid or buck pass or procrastinate their school works for they are faulty study habits and attitudes which lead to poor academic achievements.

Conclusion

The study threw light on some facts regarding the study orientation of higher secondary students. Students' study orientation is associated with their decision making self-esteem. Also the study revealed that students' study orientation is associated with non-vigilant decision making styles like defensive avoidance, buck passing and procrastination. More precisely these non-vigilant decisions affect their study orientation. To improve their study habits students must be given opportunities to enhance their self-esteem. There was evidence that girls have a better study habits and attitudes when compared to boys. Demographic variables like course of study (science or arts), number of family members, family income, birth order position and their residence do not have any impact on the study orientation of students. Thus there is conclusive evidence in the study that the Study Habits and Attitudes are independent of external environment but purely depend on internal motivation and emotions.

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