Predictors of Values as Learning Outcome of IX Graders in Social Science

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Abstract

The present study aims to determine the predictors of value-based learning outcome in social science on the sample of 1145 IX class students of three districts of North Haryana viz. Kaithal, Yamunanagar and Panchkula districts. Regression analysis was done to find the predictive power of independent variables viz. student characteristics include gender, locale, self-efficacy, achievement motivation and study habit, teacher characteristics include Teacher attitude towards social science and teaching perspectives and process factor includes classroom environment. Correlation between independent variables and dependent variable viz. value preference was determined. The variables which have significant correlation with value outcome, further Regression analysis was conducted with respect to those variables and it was found that (i) None of the student characteristics viz. gender, locale, achievement motivation, study habit and process factor i.e., classroom environment turn out to be the significant predictor of value-based learning outcome. (ii) Among the teacher characteristics: teacher attitude towards social science, social reform teaching perspectives are the strongest predictors of value-based learning outcome.

Keywords: Student characteristics, Teacher characteristics, Process factors.

Introduction

The foremost objective of social science as a discipline is to make the base for social values and also human values, freedom, trust, mutual respect, sense for heritage (Venpakal, 2017). Social science has a broader aspect which is related with the diverse concerns of society (NEP, 2020). According to NCERT (2006) "The social sciences carry a normative responsibility to create and widen the popular base for human values, namely freedom, trust, mutual respect, respect for diversity, etc. Hence social science teaching basically can be aimed at investing in a child a moral and mental energy so as to provide her with the ability to think independently and deal with the social forces that threaten these values, without losing her individuality realities" (p.2). According to Ogunyemi (2011) "Social Studies if well-conceived could provide a good curriculum platform upon which the goals of citizenship education could

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values education by inculcating attitude and values through co-scholastic areas of life skills, sports and games as well as co-curricular activities".

UNESCO (2011) defines learning outcomes as: "The totality of information, knowledge, understanding, attitudes, values, skills, competencies or behaviours an individual is expected to master upon successful completion of an education programme" (p. 81). The learning outcome document published by NCERT (2019) states that at the secondary stage, it is essential that social science leads students to scientific enquiry. Social science as a subject is concerned, not only cognitive learning outcomes related to historical geographical facts or events are important but also the main emphasis is on value-based outcomes where educators can directly relate the content with values conveniently. In social studies education, the learners are exposed to diverse cultures that is accompanied by historical geographical, economic and political diversity across the world as well as own country that provides opportunities for children to critically reflect on social issues and emphasizes values such as, empathy, equality, liberty, justice, fraternity, dignity, and harmony. All these human values develop when individuals interact with their social environment that includes family, peers, school, teachers and the belief system or ideology that has developed by various cultural, economic and political conditions.

Social sciences provide the social, cultural and analytical skills required to adjust to an increasingly interdependent world and to deal with political and economic realities. According to NCERT (2019), the attitudinal curricular expectations for class IX in social science are development of appreciation towards language, religious, political and cultural diversity; development of empathy towards differently abled and other marginal sections of the society such as scheduled tribes; with the people who were affected by wars, holocaust, natural and man-made disasters; recognizes how violence whether physical or mental is associated with immense suffering and hinders growth and development of civilizations.

The major problem is that majority of the teaching learning frameworks and models focus on learning outcomes in terms of academic achievement whereas values as a learning outcome doesn't seem to be the main priority. Chaturvedi (2013) has reported the gloomy status of Social Science at senior secondary level. Though science subjects play a major role in developing 21st century skills in students but all this is of no use if our students do not become responsible, informed and active citizens of our democratic society. In social sciences, teaching should enable students to gain insight into the nature of the subject, its logical structure and imbibe the attitudes and values associated with the subject. Presenting the lesson from a humanistic and positive perspective is important (CBSE, 2012). Pereira and Moreira

(2007) established the fact that quality of teachers has more effect on output. Kane et. al., (2011) teaching effectiveness is substantially related to growth in student achievement. Modeling could be mostly used in teaching values in social studies lesson (Celikkaya & Filoglu, 2014). Kan (2021) determined that instruction in social sciences would be considered efficient, if transfer of knowledge to real-life situations has taken place, students are actively participating, the textbook content is simplified and any discrepancies are removed. Yusmanto et. al., (2017) emphasized in allowing students to think and analyze, providing scaffolding, observing students' activity, asking questions, discussions in groups, and providing feedback in the classroom. Tay (2013) reported that though teachers were not completely aware of the ways and means of imparting value education but at the same time teachers favoured that the students acquire values such as respect, sensitivity and responsibility and agreed that family and teachers are the most important factors in inculcating values.

Therefore, understanding the importance of social science in holistic development of a child, it becomes important to find the gaps in teaching-learning process of social science so that suitable measures can be taken to amend them. For this purpose, the researcher has undertaken this study to identify few of the determinants of Values as one of the important learning outcomes in social science at secondary level with in the transactional framework of teaching learning process developed by Huitt (2003) that attempted to answer how learning takes place in students. The framework consisted of four categories viz. context (related to all those factors outside of the classroom that might influence teaching and learning); Input (Student and teacher characteristics; Student characteristics include "study habits, Age, Sex/Gender, Motivation, Learning Style, Cognitive development, Socioemotional development, moral and character development" and teacher characteristics include teacher's values and beliefs, knowledge, thinking and communication skills, performance skills, teacher efficacy and personality); Classroom processes (Teacher and student behaviours in the classroom related to student achievement as well as classroom climate); output (this is the most important one as other categories are used to predict the desired learning outcomes).

Objectives of the study

- To recognize the predictors of values as learning outcome in social science among student characteristics viz. gender, locale, self-efficacy, achievement motivation, study habits and classroom environment.

- To recognize the predictors of values as learning outcome in social science among teacher characteristics viz. teacher attitude towards social science and dimensions of teaching perspective.

Hypotheses of the study

H_1: The independent variables among student characteristics and classroom environment do not significantly contribute in predicting the value outcome independently or conjointly in case of total sample.

H_2: The independent variables among teacher characteristics i.e., teacher attitude towards social science and various dimensions of teaching perspective do not significantly contribute in predicting the value outcomes independently or conjointly in case of total sample.

DELIMITATIONS

- The study was delimited to the Yamunanagar, Kaithal and Panchkula districts of North Haryana.
- The study was delimited to H.B.S.E. affiliated Government schools in North Haryana.

Design

In this study the various factors related to the output factor i.e., learning outcome in terms of achievement in social science was selected as dependent variable. These factors were studied in terms of input and process factors. The relationship of level of achievement with respect to chosen input and process factors was examined. ***Student*** related factors as input factor included various demographic variables (gender and locale of the students (rural/urban), self-efficacy, achievement motivation and study habits. ***Teacher*** related factors as input factor included attitude towards social science and teaching perspective. Under **Process factors,** classroom environment was investigated. The **output factors** in the present study were studied as learning outcomes in terms of preference of values by IX graders in social science.

Sample

In this study, "multistage random sampling technique" was used. The population consisted of IX grade social science students and teachers of H.B.S.E. affiliated co–ed Government senior secondary schools of North Haryana. Districts of *Yamunanagar, Kaithal and Panchkula of North Haryana* were randomly chosen and from every district, the block that had maximum number of co-ed senior secondary schools, was selected. Two blocks

named Kaithal and Guhla at Cheeka from Kaithal district, Jagadhari block from Yamunanagar district and Pinjore block from Panchkula district were chosen in the sample. Out of total 182 co–ed senior secondary schools from these three districts, 30 schools (14 urban and 16 rural) were randomly selected by lottery method. The sample of students consisted of all the students studying in IX class in 30 senior secondary schools. Intact sample of all available students of IX class was taken. All the tools viz. "***Input factor - Student*** *related factors*: self-efficacy, achievement motivation and study habits"; "***Teacher*** *related factors:* Teacher's attitude toward social science and teaching perspectives (measuring transmission, developmental, nurturing and social reform)"; "***Process factor -*** classroom environment"; "***Output factor-*** Value preference scale" was administered on 1277 students. In this research only those students of ninth class student were included in the study who gave complete response to the data collection tools and finally 1145 students (592 from 14 urban schools and 553 from 16 rural schools constitute the sample. The sample of the teachers was also taken from same selected schools. 30 teachers participated in this study. The teachers who were teaching social science to the students were chosen as a sample.

TOOLS USED

For the present research following tools were used:

1. Values preference scale (developed by the investigator). The 62 items of the scale test the dimensions: equality, tolerance, individual accountability/responsibility, justice, truthfulness, non-violence, harmony and peace. Reliability was calculated by test-retest method and was found to be 0.85. Content was validated by taking experts' agreement.

2. Teacher's Attitude towards Social Science (developed by researcher). The final scale contained 28 items based on the dimensions viz. curriculum, nature of content and utility and job prospects for students. The reliability was calculated by Cronbach's α = .857 and the by test-retest method, was found to be 0.851 and content validity was established.

3. Teaching Perspective Inventory (Pratt and Collins, 2001)

4. Self-Efficacy Scale for students by (Mathur and Bhatnagar, 2012)

5. Deo-Mohan Achievement Motivation (N-Ach) Scale (2011)

6. Study Habit Scale (Rani and Jaidka, 2014)

7. Classroom Environment scale (Kaur, 2013)

Procedure

Data was collected district wise after selecting the sample for this study. The objective was to identify potential predictive power of various independent variables on achievement in social science and values inculcated. *Descriptive survey method* was employed for data collection. The selected sample of teachers and students were briefed about the purpose of the study and rapport was created with them. Finally, the survey instruments were administered to students and teachers as per instructions given in the manual to collect the data and scoring was done.

Student related factors as *input factor* included "demographic variables (gender and locale of the students (rural/urban), self-efficacy, achievement motivation and study habits"; "**Teacher** related factors as input factor included attitude towards social science and teaching perspective"; Under "**Process factors,** classroom environment" were *independent variables*. The "**output** factor i.e. value-based outcomes in social science" is the *dependent variable*. The collected data was subjected to *"regression analysis"* to find the predictive power of various independent variables. Before, subjecting data to regression in SPSS, the basic assumptions of regression were tested viz. "Normal distribution of data, no significant outliers, homogeneity of variance". All assumptions were statistically satisfied.

"To find the ability of predictor variables, two phases have to be included i.e., correlation phase and regression phase. The predictors should have some correlation with the dependent variable" (Laerd Statistics, 2018).

Prediction of Value as a learning outcome in Social Science on the Basis of Student related factors and Classroom Environment

The value as an outcome is considered as "criterion variable" and gender, locale, self-efficacy, study habit of students and classroom environment have been treated as "predictor variables".

In the first step, Correlations were calculated that deals with the relationship of gender, locale, self-efficacy, achievement motivation, study habit of students and classroom environment with value outcome

Table 1: Correlations between value outcome and student characteristics and classroom environment

	Value outcome	Gender	Locale	Self-efficacy	Achievement motivation	Study habit	Classroom Environment

Value outcome	1.000	.019	.058	.000	.045	.009	.016
Gender	.019	1.000	.001	.049	.001	.140	.042
Locale	.058	.001	1.000	.195	.001	.254	.066
Self- Efficacy	.000	.049	.195	1.000	.171	.332	.176
Achievement Motivation	.045	.001	.001	.171	1.000	.178	.132
Study Habit	.009	.140	.254	.332	.178	1.000	.263
Class Environment	.016	.042	.066	.176	.132	.263	1.000

It is observed from correlation values (Table 1), that there exists no significant (<.005) correlation between value outcome and variables viz. gender, self-efficacy, study habit of students and classroom environment. Therefore, no regression analysis was done for value outcome with respect to student related factors. *Thus, H_1 The independent variables among student characteristics and classroom environment do not significantly contribute in predicting the value outcome independently or conjointly in case of total sample,* was retained.

Prediction of Value Outcome in Social Science on the Basis of Teacher Attitude Towards and Teaching Perspectives

Table 2: Correlations between value outcome and teacher characteristics (teaching perspectives and teacher attitude towards social studies)

	Value outcome	Teacher Attitude Towards Social Science	Transmission	Developmental	Nurturing	Social reform
Value outcome	1.000	.647	.461	.439	.509	.680
Teacher Attitude Towards Social Science	.647	1.000	.376	.320	.277	.331
Transmission	.461	.376	1.000	.261	.451	.313
Developmental	.439	.320	.261	1.000	.439	.243
Nurturing	.509	.277	.451	.439	1.000	.332
Social Reform	.680	.331	.313	.243	.332	1.000

It is observed from correlation values (Table 2), that there exists moderate significant (<.005) correlation between value outcome and teacher related variables viz. teacher attitude towards social science and teaching perspectives.

Table 3: Model Summary

Model	R	R Square	Adjusted R square	Standard Error Of the Estimate	R Square Change	F Change	Df1	Df2	Sig. F Change
1	.851[a]	.724	.666	1.631	.724	12.574	5	24	.000

Predictors: (Constant), Social Reform, Developmental, Transmission, Teacher Attitude towards social science, Nurturing

Table 4

ANOVA

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	167.289	5	33.458	12.574	.000[a]
	Residual	63.862	24	2.661		
	Total	231.151	29			

Predictors: (Constant), Social Reform, Developmental, Transmission, Teacher Attitude Towards Social Science, Nurturing

A multiple regression was run to predict value outcome from teacher attitude towards social science and teaching perspectives. Table 3 revealed that these variables statistically significantly predicted value outcome, F (5, 24) = 12.574, p <.05, R^2 = 0.724. The regression output given in tables *Table 3 and 4* indicated that the model of regression is statistically significant and explained 72.4% of variation of value outcome with teacher attitude towards social science and teaching perspectives. The predictive strength of regression is shown by R which is 0.851. Table 5 displays the analysis of multiple regression which includes standard error and t-test to assess the prediction of value outcome with teacher attitude towards social science and teaching perspectives.

Table 5

Regression Coefficients for the prediction of Value outcome on the basis of Teacher attitude towards social science and teaching perspectives

Model	Unstandardized coefficients		Standardized coefficients		
	B_o	Std.Error	Beta	T	Sig.
1(Constant)	20.363	9.571		2.128	.044
Teacher attitude towards social science	.128	.040	.390	3.193	.004
Transmission	.100	.188	.067	.531	.600
Developmental	.151	.166	.112	.909	.372
Nurturing	.279	.211	.174	1.323	.198
Social Reform	.846	.226	.445	3.739	.001

Table 5 presents standardized coefficients (β values) which tells about relative strength of each predictor. There is no significant change in value-based outcome due to "transmission perspective, developmental perspective and nurturing perspective" as the Sig. value in the three cases was more than the acceptable limit of 0.05. It can be inferred that among all variables, social reform perspective (β = .445) and teacher attitude towards social science (β =.39) were the strongest predictors of value-based outcome. The following equation of regression can be used to predict the value outcome of students in social science based on teacher attitude towards social science and social reform teaching perspectives.

Value Outcome = 20.363 + (0.846) Social Reform + (0.128) Teacher Attitude Towards Social Science

This equation of regression provides the following conclusions:

- If social reform teaching perspective is increased by 1%, then value-based outcome in social science will improve by 0.846%.

- If teacher attitude towards social science is improved by 1%, then value outcome in social science will improve by 0.128 %.

Thus *H_2, the independent variables among teacher characteristics i.e., teachers' attitude towards social science and teaching perspectives do not significantly contribute in predicting the value outcome independently or conjointly in case of total sample*, was rejected.

Discussion of results

In the present research, it was evident from the results that student personal factors viz. demographic factors gender, Locale (urban/rural), level of self-efficacy, achievement motivation, study habits didn't contribute towards their preference of values. Even the classroom environment didn't contribute towards preference of values. Whereas teacher

factors viz. among all the teaching perspectives, social reform perspective and teacher attitude towards social science turned out to be the biggest contributor towards students' value preference. This indicates that the students are more likely to get influenced by teachers' perspectives and attitude with respect to value preference. Whereas student related factors contributed more towards cognitive outcome i.e achievement in social science (Kumar, 2022) but didn't affect attitudinal value-based outcome.

Educational Implications

- Values is an attitudinal variable, and it takes long time for the individual to be characterized by a value. It is developed by the interaction with one's self and other socio-environmental factors. But in the school years children are more likely to be influenced by the teachers.

- As there could be many subjective perceptions regarding the facts and events that had occurred in past and forms the large part of content in social sciences, it is up to the teachers how they approach the content in social sciences. They should adopt rationale approach with strong beliefs deep rooted in Indian value system, then the students will definitely prefer values of higher order.

References

1. Central Board of Secondary Education. (2012). Values education - a handbook for teachers.http://cbseacademic.in/web_material/ValueEdu/Value%20Education%20Kits.pdf

2. Celikkaya, T., & Filoglu, S. (2014). Attitudes of social studies teachers toward value and values education. *Educational Sciences: Theory and Practice, 14*(4), 1551-1556. https://eric.ed.gov/?id=EJ1045069

3. Chaturvedi, S. (2013). Status of social sciences in senior secondary schools: a case study from agra [Web log post]. http://www.opiniontan door.in/2014/02/ statusof-social-sciences-in-senior.html

4. Deo, P. & Mohan, A. (2002). Deo-Mohan Achievement Motivation Scale (nAch). National Psychological Corporation.

5. Huitt, W. (2003). A transactional framework of the teaching/learning process. *Educational Psychology Interactive*. http://www.edpsycinteractive.org/materials/tchlrnmd.html

6. Kan, C. (2021). What is efficient social studies instruction? *International Journal of Education and Literacy Studies*, *9*(3), 110-116.

7. Kane, T. J., Taylor, E. S., Tyler, J. H., & Wooten, A. L. (2011). Identifying effective

classroom practices using student achievement data. *Journal of human Resources*, *46*(3), 587-613.

8. Kaur, S. (2013). Achievement in science in relation to students' perception of classroom environment and their emotional intelligence (Unpublished doctoral dissertation). Panjab University, Chandigarh, India.

9. Kumar. M. (2022). Determinants of learning outcomes of IX graders in social science: a study. [Doctoral Dissertation, Panjab University, Chandigarh]. http://hdl.handle.net/10603/485400

10. Laerd Statistics (2018). Multiple regression analysis using spss statistics. https://statistics.laerd.com/spss-tutorials/multiple-regression-using-spss-statistics.php

11. Mathur, G. P. & Bhatnagar, R.K. (2012). Manual for Self-Efficacy Scale. National Psychological Corporation.

12. National Education Policy (2020). Ministry of Human Resource Development, Government of India. NEP_Final_English.pdf (education.gov.in)

13. NCERT (2006). Position paper national focus group on teaching of social sciences. NCERT, New Delhi. social_sciencel.pdf (ncert.nic.in)

14. NCERT (2019). *Learning Outcomes at Secondary Stage*. https://ncert.nic.in/pdf/ publication/otherpublications/learning_outcomes.pdf

15. Ogunyemi, B. (2011). A clash of past and present: Citizenship Education in Nigeria's junior secondary school curriculum. European Journal of Social Sciences, 18(3), 378-385.

16. Pereira, M.C. & Moreira, S.P. (2007). A Stochastic Frontier Analysis of Secondary Education Output in Portugal. https://api.semanticscholar.org/CorpusID:17458518

17. Pratt, D. D., J. B. Collins, and S. J. Selinger. 2001. *Development and Use of the Teaching Perspectives Inventory (TPI)*. https://www.academia.edu/317236/Development_ and_Use_of_the_Teaching.Perspectives_Inventory_TPI

18. Rani, D. & Jaidka, M.L. (2014.) Study Habit Scale. National Psychological Corporation.

19. Tay, B. (2013). The views of prospective social studies and classroom teachers about values and values education. *Educational Research and Reviews, 8*(9),560. http://search.proquest.com/openview/97e37ad94ea52c6198fa3544d46680f0/1? pqorigsite=gscholar&cbl=1006373

20. UNESCO UIS. (2011). *International Standard Classification of Education ISCED 2011*. https://uis.unesco.org/sites/default/files/documents/international- standard-classification -of-education-isced-2011-en.pdf

21. Venpakal, P. (2017). *Understanding disciplines and subjects*. Academia.edu -Share research. https://www.academia.edu/43779980/ UNDERSTANDING_ DISCIPLINES_ AND_SUBJECTS

22. Yusmanto, H., Soetjipto, B. E., & Djatmika, E. T. (2017). The Application of Carousel Feedback and Round Table Cooperative Learning Models to Improve Student's Higher Order Thinking Skills (HOTS) and Social Studies Learning Outcomes. *International Education Studies*, *10*(10), 39-49.