A CAUSAL MODEL OF DETERMINANT OF STUDENTS' ATTITUDE TOWARDS SOCIAL STUDIES IN JUNIOR SECONDARY SCHOOLS IN OSUN STATE

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Abstract

The study examined the most meaningful causal model (home factors, school factors, teacher personal factors, career interest in Social Studies, attitude towards reflective inquiry, attitude towards social scientists, leisure interest in Social Studies, teachers' attitude towards Social Studies and students' attitude towards Social Studies) for students. It examined the direction as well as the estimate of the strength of the causal paths of the variables in the model. It also assesses the direct and indirect effect of the variables on the students' attitude towards Social Studies. Finally, the proportions of total effects (direct and indirect) were determined. This is with a view of determining the appropriate students' attitude towards Social Studies. The research design is an ex-post facto (non-experimental) type. The population for the study consisted of all the public junior secondary schools, Social Studies teachers and JSS 3 students in Osun state, Nigeria. Purposive sampling technique was employed in selecting 40 Junior Secondary Schools, 40 Social Studies teachers and 40 J.S.S. 3 students from Ife Geographical Zone of Osun State, Nigeria. Three instruments were constructed and validated before use for the study. They are: "School Questionnaire" (SQ), "Teacher Questionnaire" (TQ) and "Students Questionnaire" (SQ).The reliability coefficients yielded 0.76, 0.82 and 0.78 respectively. The three instruments were used to elicit information from both students and teachers respectively. Path analysis was employed for the analysis of the data collected. Among other results, it was found that out of eight (8) variables hypothesized to be influencing students' attitude towards Social Studies, only four (4) (career interest in Social Studies, attitude towards reflective inquiry, attitude towards social scientists, and leisure interest in Social Studies) significantly determine students' attitude towards Social Studies directly and indirectly. The remaining eleven (11) variables (home factors, school factors, teacher personal factors, and teachers' attitude towards Social Studies) were found to exert such causal influence only indirectly. It is concluded that the school and the home have to be made stimulating for the students in order to make them have interest, and continue to have interest, in Social Studies.

Keywords: Students' Attitude, Junior Secondary Schools, Osun State.

Introduction

The misconception in many quarters is that anyone could teach Social Studies as long as the individual is educated no matter the discipline. This trend has partly been responsible for the low image of the subject and also why such 'teachers' do not handle the subject well because they lack the basic methodological and philosophical principles of the subject.

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At the secondary school level, the objectives of Social Studies as stated in Dubey and Barth (1980, pp 7-8) include:

(i)   to make the student aware of the problems of his country and of the world in general, and to appreciate the interdependence between peoples;

(ii)   to create an awareness of understanding of the evolving social and physical environment, its natural, man-made, cultural and spiritual resources, together wit the rational use and conservation of these resources for development;

(iii)   to develop in the student a positive attitude to citizenship and a desire in them to make a positive personal contribution to the creation of a united Nigeria;

(iv)   to develop a capacity to learn and to acquire skills essential to the formation of a satisfactory professional life, that is, pride in the job and sound judgement;

(v)   to develop in the student an appreciation of his cultural heritage and a desire to preserve it.

As these will not be enough, the Federal Government of Nigeria (2004) identified the objectives of Social Studies to include:

(i)   create an awareness and an understanding of our evolving social and physical environment as a whole in its natural, manmade, cultural and spiritual resources together with the rational use and conservation of these resources for national development;

(ii)   develop a capacity to learn and acquire certain basic skills that include not only those of listening, speaking, reading, writing, and of calculation, but also those skills of hand and head, together with those of observation, analysis and influence which are essential to the forming of a sound social, economic and political judgements;

(iv)   ensure the acquisition of that relevant body of knowledge and information which is an essential pre-requisite to personal development, as well as to a positive personal contribution to the betterment of mankind;

(v)   develop a sympathetic appreciation of the diversity and interdependence of all members of the local community; and the wider national and international communities;

(vi)   develop in students positive attitudes of togetherness, of appropriate values of honesty, integrity, hard work, fairness and justice at work and play as one's contribution to the development of the nation.

Social Studies is viewed as simplified Social Science. Besides, it is seen as combination of social science and humanities. On the basis of this, Social Studies is broad spectral in sourcing its content. Therefore, Social Studies starts where the Social Sciences end while the holistic approach to curriculum organization in Social Studies makes it possible for vital emergent issues to be included. Social Studies utilizes the content of the Social Sciences and other disciplines to achieve the objectives of Social Studies.

However, with the above attainable goals and objectives of Social Studies, the attitude of both students and teachers towards the subject called for serious attention. The word attitude emanated from the Latin word "aptus". Attitudes determine how individual can think, do, see and hear. It implies individual's prevailing tendency to respond favourably or unfavourably towards another person or an object. Attitude can be positive and at the same time negative depending on situation and circumstances. Studies in the past have shown students' attitude towards a particular subject play a prominent role in determining students' performance in such a subject.

Haladyna (1979) carried out a study using a theoretical model to measure students' attitude toward Social Studies. According to him, attitudes were measured as they related to five constructs: (1) teacher attitudes, including support and reinforcement for the student and enthusiasm for subject; (2) student self-concept , scholastic attitude, peer acceptance, and achievement; (3) instruction such as homework, class discussion, learning activities, and teacher effectiveness; (4) learning environment variables of cohesiveness, formality, friction,

satisfaction, difficulty, school pressure and size, and class size; and (5) parental friction, support, and trust. Results indicated that variables in all five constructs were significantly related to attitudes toward Social Studies. However, the patterns were not constant between ninth and seventh grades. Generally ninth graders were more affected by issues of scholarship and social relationships than seven graders, although students' attitudes, the learning environment, and teacher variables are importantly related to Social Studies attitudes regardless of grade level.

It could therefore be seen that school and home factors are inseparable factors in determining the pattern of relationship among students in the attainment of academic progress as well as attitude towards the subject.

Statement of the Problem

The study sought to construct and test a nine-variable model (home factors, school factors, teacher personal factors, career interest in Social Studies, attitude towards reflective enquiry, attitude towards social scientists, leisure interest in Social Studies, teachers' attitude towards Social Studies and students' attitude towards Social Studies) for providing casual explanation of students' attitude toward Social Studies

Research Questions

1. What is the most meaningful causal model (home factors, school factors, teacher personal factors, career interest in Social Studies, attitude towards reflective inquiry, attitude towards social scientists, leisure interest in Social Studies, teachers' attitude towards Social Studies and students' attitude towards Social Studies) for students?
2. What are the directions as well as the estimate of the strengths of the causal paths of the variables in the model?
3. What are the direct and indirect effects of the variables on the students' attitude towards Social Studies?
4. What proportion of the total effects is:
   i. direct
   ii. indirect

Methodology

The research design is an ex-post facto (non-experimental) type. This is because the researcher did not have any control of the variables as they had manifested before the research. The target population for the study comprises of all the public Junior Secondary School, Social Studies teachers and J.S.S. 3 students in Osun State. Purposive sampling technique was employed in selecting 40 Junior Secondary Schools, 40 Social Studies teachers and 40 J.S.S. 3 students from Ife Geographical Zone of Osun State. Three instruments were constructed and validated before use for the study, they are School Questionnaire (SQ), Teacher Questionnaire (TQ) and Students Questionnaire (SQ).The reliability coefficients yielded 0.76, 0.82 and 0.78 respectively. The three instruments were used to elicit information from both students and teachers respectively. Path analysis was employed for the analysis of the data collected.

Results

What is the most meaningful causal model (home factors, school factors, teacher personal factors, career interest in Social Studies, attitude towards reflective enquiry, attitude towards social scientists, leisure interest in Social Studies, teachers' attitude towards Social Studies and students' attitude towards Social Studies) for students?
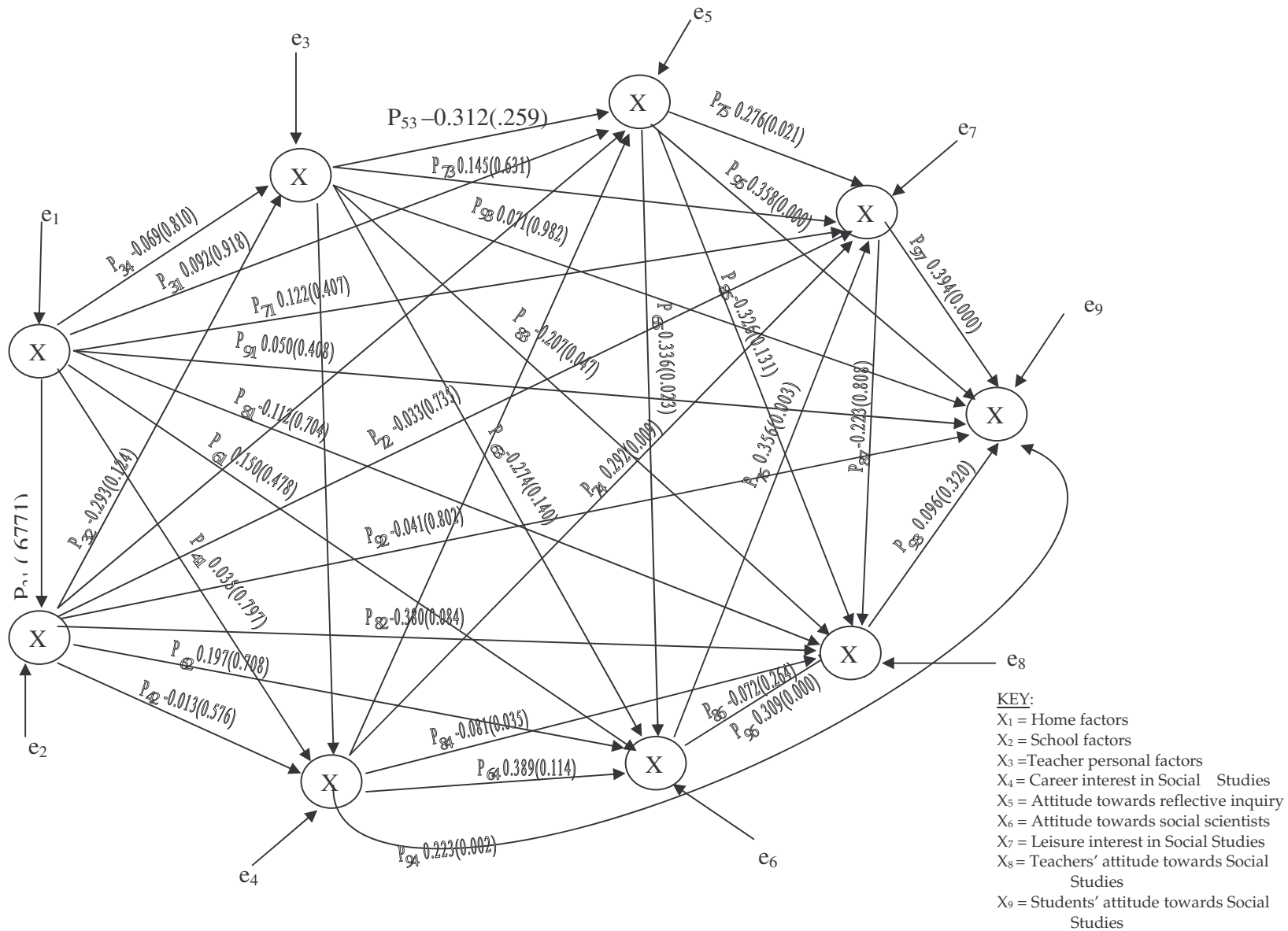
KEY:
X_1 = Home factors
X_2 = School factors
X_3 = Teacher personal factors
X_4 = Career interest in Social   Studies
X_5 = Attitude towards reflective inquiry
X_6 = Attitude towards social scientists
X_7 = Leisure interest in Social Studies
X_8 = Teachers' attitude towards Social
                Studies
X_9 = Students' attitude towards Social
                Studies

Figure 1:   Hypothesized Recursive Path Model (showing path coefficients and zero-
                   order correlation coefficients parenthesis

Figure 1 shows the hypothesized model with its causal paths. The researcher identified the significant paths of the model after exploring all the hypothesized linkages by forming a set of structural equations labeled 1 to 7. Each equation corresponds to each dependent variable

$X_1 = e_1$

$X_2 = e_2$

$X_3 = P_{31}X_1 + P_{32}X_2 + e_3$ …………………………………………………… 1

$X_4 = P_{41}X_1 + P_{42}X_2 + P_{43}X_3 + e_4$ …………………………………………… 2

$X_5 = P_{51}X_1 + P_{52}X_2 + P_{53}X_3 + P_{54}X_4 + e_5$ …………………………………….. 3

$X_6 = P_{61}X_1 + P_{62}X_2 + P_{63}X_3 + P_{64}X_4 + P_{65}X_5 + e_6$ ……………………………… 4

$X_7 = P_{71}X_1 + P_{72}X_2 + P_{73}X_3 + P_{74}X_4 + P_{75}X_5 + P_{75}X_6 + e_7$ ……………………… 5

$X_8 = P_{81}X_1 + P_{82}X_2 + P_{83}X_3 + P_{84}X_4 + P_{85}X_5 + P_{86}X_6 + P_{87}X_7 + e_8$ …………… 6

$X_9 = P_{91}X_1 + P_{92}X_2 + P_{93}X_3 + P_{94}X_4 + P_{95}X_5 + P_{96}X_6 + P_{97}X_7 + P_{98}X_8 + e_9$ …… 7

The hypothesized model shown in figure 1a is also reproduced in figure 1b   The numbers written on each pathway are the path coefficient and the zero order coefficient (in parenthesis).   In trimming the paths in the hypothesized model, paths were considered meaningful if the absolute value of the path coefficient is at least 0.05. Based on these criteria, the new path model (figure 1b) is obtained. The figure shows that only fifteen (15) out of thirty-six (36) paths survived the trimming exercise.
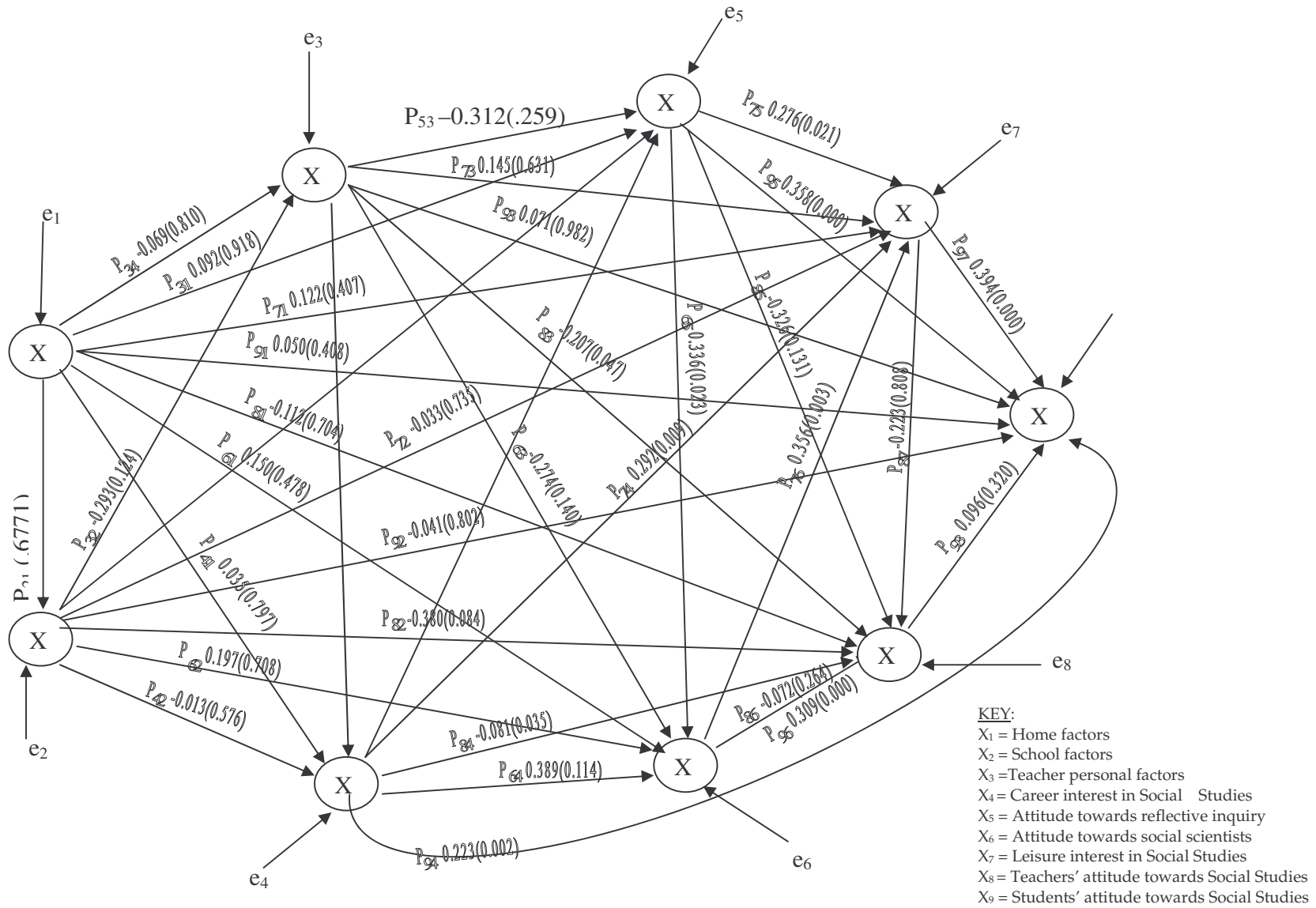
Figure 1b: Hypothesized Recursive Path Model (showing path coefficients and zero-order correlation coefficients parenthesis

KEY:
X₁ = Home factors
X₂ = School factors
X₃ =Teacher personal factors
X₄ = Career interest in Social   Studies
X₅ = Attitude towards reflective inquiry
X₆ = Attitude towards social scientists
X₇ = Leisure interest in Social Studies
X₈ = Teachers' attitude towards Social Studies
X₉ = Students' attitude towards Social Studies

Table 1: The Original and Reproduced Correlation Matrix for the Nine Variables

Variable	X₁	X₂	X₃	X₄	X₅	X₆	X₇	X₈	X₉
X₁	1.000	-0.079	0.002	-0.002	0.171	0.219	0.248	0.018	0.302
X₁	-0.079	1.000	-0.287	-0.106	-0.071	0.198	-0.064	-0.321	-0.048
X₁	0.002	-0.287	1.000	0.319*	-0.092	-0.144	0.115	0.336*	0.071
X₁	-0.002	-0.013	0.338	1.000	0.219	0.427**	0.488**	0.056	0.609**
X₁	0.002	-0.143	-0.312	0.172	1.000	0.478*	0.507**	-0.018	0.752**
X₁	0.150	0.197	-0.341	0.389	0.336	1.000	0.522**	0.031	0.755**
X₁	0.126	-0.033	0.158	0.353	0.283	0.426	1.000	0.099	0.812*
X₁	-0.116	-0.343	0.235	-0.091	-0.334	-0.042	0.124	1.000	0.028
X₁	0.056	-0.041	0.078	0.246	0.377	0.309	0.394	-0.096	1.000

* Correlation is significant at 0.0

**Correlation is significant at 0.01 level (2-tailed)

Entries above the diagonal are the original correlation coefficients.

Entries below the diagonal are the reproduced correlation coefficients

Table 2: Discrepancies between the Original and Reproduced Correlation Coefficients

Correlation	Original	Reproduced	Discrepancy
r₁₂	-0.079	-.0.079	0.000
r₁₃	0.002	0.002	0.000
r₁₄	-0.002	-0.035	0.033
r₁₅	0.171	0.002	0.169
r₁₆	0.219	0.150	0.069
r₁₇	0.248	0.126	0.122
r₁₈	0.018	-0.116	0.134
r₁₉	0.302	0.056	0.246
r₂₃	-0.287	-0.287	0.000
r₂₄	-0.106	-0.013	0.093
r₂₅	-0.071	-0.143	0.072
r₂₆	0.198	0.197	0.001
r₂₇	-0.064	-0.033	0.031
r₂₈	-0.321	-0.343	0.022
r₂₉	-0.048	-0.041	0.007
r₃₄	0.319	0.338	0.019
r₃₅	-0.092	-0.312	0.22
r₃₆	-0.144	-0.341	0.197
r₃₇	0.115	0.158	-0.043
r₃₈	0.336	0.235	0.101
r₃₉	0.071	0.078	-0.07
r₄₅	0.219	0.172	0.470
r₄₆	0.427	0.389	0.038
r₄₇	0.488	0.353	0.135
r₄₈	0.056	-0.091	0.147
r₄₉	0.609	0.246	0.363
r₅₆	0.478	0.336	0.142
r₅₇	0.507	0.283	0.224
r₅₈	-0.018	-0.334	0.316
r₅₉	0.752	0.377	0.375
r₆₇	0.522	0.426	0.096
r₆₈	0.031	-0.042	0.073
r₆₉	0.755	0.309	0.466
r₇₈	0.099	0.223	0.124
r₇₉	0.812	0.418	0.394
r₈₉	0.028	-0.096	0.124
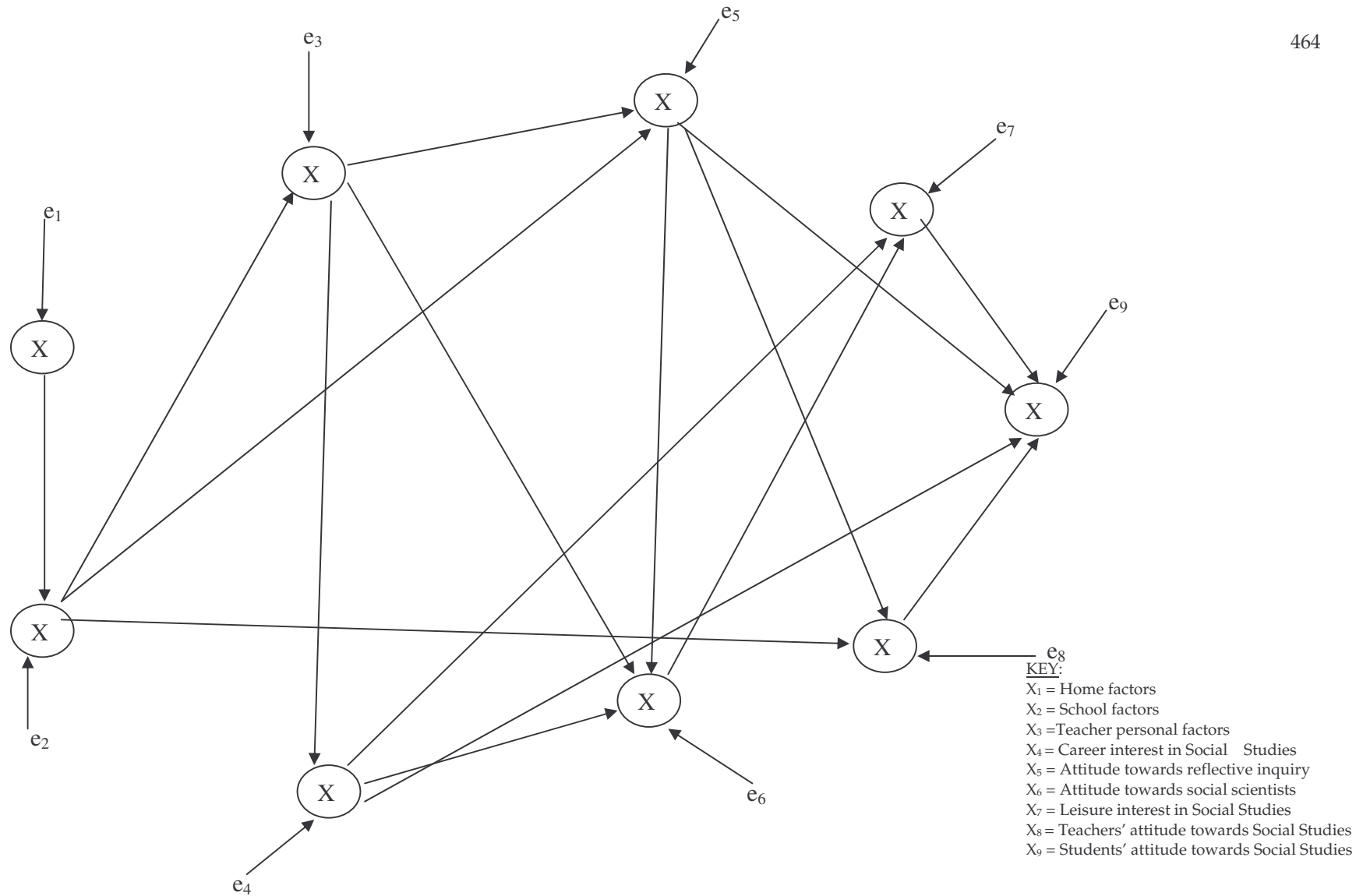
Figure 2: The New Path Model showing only the significant pathss

KEY:
X₁ = Home factors
X₂ = School factors
X₃ =Teacher personal factors
X₄ = Career interest in Social   Studies
X₅ = Attitude towards reflective inquiry
X₆ = Attitude towards social scientists
X₇ = Leisure interest in Social Studies
X₈ = Teachers' attitude towards Social Studies
X₉ = Students' attitude towards Social Studies

In order to verify the efficacy of the new model (figure 2), the reproduced correlation coefficients (using the new path model) were compared to the original correlation coefficients. Table 1 and 2 show the original and reproduced correlation matrix and the discrepancies between them. From table 2, it is seen that the discrepancies between the original and reproduced correlations, on the average, are minimal, thus indicating that the pattern of correlation in the observed data is consistent with the new model. The new model is, therefore considered tenable in explaining the causal interaction between the criterion variable (variable 9) and the predictor variables X_1 to X_8. Figure 2 therefore depicts the most meaningful causal model involving home factors, school factors, teacher personal factor, career interest in Social Studies, attitude towards reflective inquiry, attitude towards Social Studies, leisure interest in Social Studies, teachers attitude towards Social Studies.

Research Question 2

What are the directions as well as the estimate of the strengths of the causal paths of the variables in the model?

The directions of the causal paths of the variables in the model are shown in the pathways which are (i) significant, (ii) meaningful, and (c) have a link with the criterion variable (students' attitude toward Social Studies). These paths are thirty-six (36) in number and are shown in table 3. the beta weights of the paths (path coefficients), which give the estimates of the strengths of the causation, are shown in table 3 as the path coefficient from the new model of various factors involved in students' attitude toward Social Studies. From these beta weights, the actual values of the indirect paths were determined by multiplying the component single paths.

Research Question 3

What are the direct and indirect effects of the variables on the students' attitude towards Social Studies?

The significant and meaningful pathways through which all the predictor variables caused variations in the criterion show that out of fifteen (15) pathways, only four (4) are direct while eleven (11) are indirect. An indirect path (compound path) is considered significant and meaningful if the constituent single paths are significant and meaningful. The results show that of the nine (9) variables, career interest in Social Studies (variable 4), attitude towards reflective inquiry (variable 5), attitude towards social scientists (variable 6), the leisure interest in Social Studies (variable 7) have direct effect on the students' attitude towards Social Studies. Out of these, leisure interest in Social Studies (variable 7) made the highest contribution to the students' attitude towards Social studies ($\beta = 0.418$). This is closely followed by attitude towards reflective inquiry (variable 5) ($\beta = 0.377$), while attitude towards social scientists (variable 6) is the third with $\beta = 0.309$. The least contribution among the direct pathways was made by career interest bin science (variable 4), which contributed $\beta = 0.246$. This means that they had positive contribution to the explanation of students' attitude towards Social Studies. The indirect pathways and their path coefficients are as follows:

$P_{32} = -0.293$
$P_{43} = 0.340$
$P_{52} = -0.143$
$P_{65} = -0.312$
$P_{53} = -0.341$
$P_{63} = 0.389$
$P_{64} = 0.336$
$P_{74} = 0.353$
$P_{76} = 0.426$
$P_{82} = -0.343$
$P_{83} = 0.334$

It is observed that P_{76} contributed more than any other indirect pathway.

Research Question 4

What proportion of the total effects is:

i.   direct

ii.   indirect

Table 3:   Proportion of Total Effects of the Predictors that are Direct and Indirect

Criterion	Predictor Variable	Total Effect (a)	% (c)	Direct Effect (b)	% (d)	Indirect Effect (a-b)	%	h x 100 Ta	(a-b) x 100 Ta
Variable 9	1	0.302	3.10	-	-	0.302	0.031	-	10.501
	2	-0.048	-0.49	-	-	-0.048	-0.005	-	-1.669
	3	0.071	0.733	-	-	0.071	0.071	-	2.469
	4	0.609	6.20	0.223	2.293	0.386	3.952	7.754	13.421
	5	0.752	7.70	0.358	3.680	0.394	4.034	12.448	13.700
	6	0.755	7.70	0.309	3.177	0.446	4.566	10.744	15.508
	7	0.407	4.20	0.394	4.040	0.013	0.133	13.700	0.452
	8	0.028	0.30	-	-	0.028	0.003	-	0.974
Total (T)	-	2.876	29.50	1.284	13.20	1.592	16.30	44.644	55.356

Note: $C = \dfrac{A \times 100\%}{Ta}$ $D = \dfrac{b \times 100\%}{Ta}$ $E = \dfrac{b \times 100}{Ta}$, $F = \dfrac{(a-b) \times 100\%}{Ta}$

Total effect = Original correlation coefficient
Direct effect = Path coefficient
Indirect effect = Total – Direct effect

Results

Results of the study show that out of the thirty-six (36) hypothesized paths in figure 1, fifteen (15) significant ways survived the trimming. These pathways were derived from seven structural equations for producing the most meaningful causal model (figure 2) involving home factors, school factors, teacher personal factors, career interest in Social Studies, attitude towards reflective inquiry, attitude towards social scientists, leisure interest in Social Studies, teachers' attitude towards Social Studies, home factors, school factors, teacher personal factors, career interest in Social Studies, teachers' attitude towards Social Studies, and students' attitude towards Social Studies. The results indicated that 29.5% of the variations in the students' attitude towards Social Studies is determined by the variables when taken together. The remaining 70.5% of the variability might be due to influences of other factors not considered in this study. Table 3 indicates that out of the total variation in the criterion measure that is accounted for by the eight independent variables (when taken together), direct and indirect components account for 44.644% and 55.356% respectively. It also reveals that only four variables (career interest in Social Studies, attitude towards reflective inquiry, attitude towards scientists, leisure interest in Social Studies when the magnitude of the beta weights is taken to be directly proportional to the degree of effect of the influencing variables.

Based on the magnitude of the beta weights in the new model as shown in table 3, attitude towards social scientists (variable 6) has the most causal influence on students' attitude towards Social Studies. The effect of attitude towards social scientists (variable 6) on students' attitude towards Social Studies is estimated at 0.755, that of attitude towards reflective inquiry (variable 5) is estimated at 0.752. Others are career interest in Social Studies (variable 4) estimated at 0.609 and leisure interest in science estimated at 0.407.

Summary of Results
The major findings of this study are summarized as follows:
(a)   A new model (the most meaningful model) involving the listed variables (home factors, school factors, teacher personal factors, career interest in Social Studies, attitude towards reflective inquiry, attitude towards social scientists, leisure interest in Social Studies, and teachers' attitude towards Social Studies with fifteen (15) significant pathways were produced. The pattern of original correlation in the observed data was found to be consistent with the model.

(b)   It was found that out of eight (8) variables hypothesized to be influencing students' attitude towards Social Studies, only four (4) (career interest in Social Studies, attitude towards reflective inquiry, attitude towards social scientists, and leisure interest in Social Studies) significantly determine students' attitude towards Social Studies directly and indirectly. The remaining eleven (11) variables (home factors, school factors, teacher personal factors, and teachers' attitude towards Social Studies) were found to exert such causal influence only indirectly.

(c)   All together, 44.64% of the total effects of all eight (8) independent variables on students' attitude towards Social Studies are direct while 55.356% are exerted indirectly.

(d)   The relative order of importance of the eight (8) variables that were hypothesized to determine students' attitude towards Social Studies in Junior Secondary Schools are as follows:

      (i)   career interest in Social Studies (v7)

      (ii)   attitude towards reflective inquiry (v5),

      (iii)   attitude towards scientists (v6),

      (iv)   career interest in science (v4),

      (v)   teacher personal factors (v3),

      (vi)   teacher attitude towards Social Studies (v8)

      (vii)   school factors (v2), and

      (viii)   home factors (v1)

(e)   The home factors did not exert any significant influence on students' attitude towards Social Studies. However, the home can exert influence through the school factors in a non-recursive manner.

Conclusion

Students' attitude towards Social Studies is determined by various factors inherent in themselves, the school, their teachers and lastly in their homes. It is therefore, important that the school and the home have to be made stimulating for the students in order to make them have interest, and continue to have interest, in Social Studies.

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