



# EFFECT OF MOTIVATING OPPORTUNITIES MODEL ON ACHIEVEMENT IN SOCIAL SCIENCE AT UPPER PRIMARY LEVEL

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## ABSTRACT

Motivation is a key component in any learning process. Learners who are motivated are better able to concentrate on their goals. Motivating opportunities model is an innovation over existing motivational devices in the field of instructional design and human performance technology. It integrates the crucial features for a successful instructional design linked with motivation. Present paper discusses the effect of motivating opportunities model on achievement in social science among upper primary school students. A pre-test post-test nonequivalent group design of quasi-experimental method was employed for this purpose. Standard VII students were (n = 40) allowed to learn selected topics in social science incorporating the motivating opportunities model and their achievement was compared to that of students (n = 40) instructed through traditional teaching. Statistical analysis led to findings that suggest the significance of the model in enhancing achievement in social science.

**Key term:** Motivating opportunities model

## Introduction

A country's future is in its students. Their talent and creativity will contribute to the welfare of all humanity. The activities in the classroom therefore need to be planned so that students may better understand the concepts being taught and consider how they could apply them to their own lives. Simply providing enough infrastructure and other facilities will not be sufficient to meet the educational objectives. They can only be attained through thoughtful preparation of instructional strategies that encourage students' wholehearted engagement in classroom deliberations. Students in upper primary classes, especially being at the beginning of adolescence stage, have a natural propensity to become less interested in learning as a result of their increasing curiosity about their changing physical appearance and consequent emotional disturbances. They are also perplexed in many ways by the present era of information overload. Such learners would be difficult for any teacher, no matter how inspiring, to fully engage in the learning process. Thus, it is important for students to be motivated to study, and motivation is a key component of classroom learning.

The current educational system continues to rely on textbooks to transmit knowledge. The strict adherence to textbooks by teachers and students is a significant problem in social science education (Kece, 2014). There are certain disadvantages to depending solely on textbooks for in-class learning, despite the fact

that they are an essential tool for teaching school topics and have many benefits. Textbooks do not consider students' prior knowledge or the environment in which they are learning. Only elementary knowledge based on facts is learned via textbooks. Another problem with textbooks is their age, particularly in the contemporary, rapidly developing world. By encouraging rote learning, textbooks prevent students from developing their thinking skills. Other shortcomings of social science instruction include difficulty with class size, a lack of technology use, problems with time management, and poor teacher quality (Bhatnagar, 2018). Therefore, creative instructional approaches that encourage student engagement and motivation in the learning process become important in today's education. Many research studies reiterate the significance of addressing motivational elements in instructional process (Vu et al., 2022; Feraco et al., 2022; Qulez-Robres et al., 2021; Ghbari, 2016).

### **Motivating Opportunities Model**

The Motivating Opportunities Model, propounded by Patricia L. Hardré, is a progression of the ARCS model, created in 1987 by John Keller. Contemporariness, comprehensiveness, integration and flexibility are the key characteristics of this instructional model (Hardré & Miller, 2006). The term "motivating" refers to a wide variety of primarily internal qualities including cognitive, affective, perceptual, and emotional reactions that together make up the complex construct "motivation." These components frequently fall short if motivation is not clearly analysed, created, and integrated into the teaching; nevertheless, deliberately assessing and designing for motivational factors can make a significant difference in learning performances. This is why it is so important for learners to have and use a complete, integrative, and flexible motivational model. It is based on the notion that only motivated individuals can learn and perform better than their unmotivated colleagues when all other factors are held constant. A systematic approach is used in the model to assess and create motivation-based education around elements or characteristics like situational, utilization, competency, content, emotional, social, and systemic considerations. In tune with these components specific strategies that enhance motivation are incorporated in the instructional design. The teacher supports students throughout lessons in order to start, maintain, review, and heighten the learning process. This is accomplished by rewards in situations where there is adequate motivation; this boosts the person's performance and output.

### **Objective of the Study**

To study the effect of motivating opportunities model on achievement in social science of students at upper primary level.

### **Hypothesis**

The achievement in social science of students taught through motivating opportunities model will be higher than that of students taught through traditional teaching.

### **Methodology**

The study was made to verify the effectiveness of motivating opportunities model over traditional teaching in enhancing achievement in social science at upper primary level. A pre-test post-test nonequivalent group design of quasi-experimental method was employed to realize the objective of the study. Students (N = 80) belonged to standard VII of St. Augustine's School, Aroor, Alappuzha in Kerala constituted the sample for the study. The total sample was split in to experimental and control groups allocating equal numbers in both.

The experimental group was allowed to learn selected topics in social science in tune with the motivating

opportunities model where various motivational elements such as role play, instant quiz, folk songs, preparation of placards, paper chain, and so on as and when the situation demands. The contest group was taught the same topics through traditional method. At the beginning pre-test and at the end post-test was administered to determine the effect of the model in enhancing achievement in social science of the students. The major statistical procedures used for analysis were t test and ANCOVA.

## Analysis and Discussion

### 1. Comparison of achievements of both the groups prior to experimentation

The control group's mean pre-test score was compared with that of experimental group by employing t test. The particulars of t test results are shown in table 1.

**Table 1**

Test of significance of difference in the pre-test scores of control group and experimental group

Group	Mean	Standard Deviation	t(df = 78)	Significance
Control	3.150	1.311	0.245	p = .807
Experimental	3.225	1.423		

As seen from table 1, the t value calculated 0.245 does not reach the two-tailed critical value 1.99 at .05 level. Hence the difference in means is not significant ( $t=0.245$ ,  $P>.05$ ) indicating the equivalence of the experimental group students and control group students with regard to achievement before subjecting them to treatment.

### 2. Comparison of achievements of both the groups after experimentation

The mean post-test score of control group students was matched with that of experimental group students by calculating t value. The t test results are depicted in table 2.

**Table 2**

Test of significance of difference in the post-test scores of control group and experimental group

Group	Mean	Standard Deviation	t(df =78)	Significance
Control	10.20	3.098	13.91	p = .000
Experimental	18.65	2.271		

As evident from table 2, the experimental group shows better achievement over the control group with a difference of 8.45. The t value calculated 13.91 is much greater than the two-tailed critical value 1.99 at .05 level. Hence the difference in means is significant ( $t=13.91$ ,  $P<.05$ ) indicating the non-equivalence of the experimental group students and control group students with regard to achievement after the treatment. This finding leads to an inference of the superiority of students taught through motivating opportunities model over the traditionally taught students with regard to achievement in social science.

### 3. Comparison of achievements of both the groups using analysis of covariance

The selected groups for this experimental study were intact classroom groups; hence the initial difference in achievements of these groups has been nullified by employing the statistical control ANCOVA and the resultant post-test means (adjusted) were compared. The pre-test and post-test scores of experimental and control groups were subjected to analysis of variance as a prerequisite for ANCOVA. Summary of analysis of variance of pre-test and post-test scores of the experimental and control group are given in the table 3.

**Table 3**

Summary of Analysis of variance of pre-test and post-test scores of students in the experimental and control groups

Source of Variation	df	SSx	SSy	MSx	MSy	F-ratio
Between Groups	1	0.1125	1428.05	0.1125	1428.05	$F_x=0.060$
Within Groups	78	146.075	575.5	1.8727	7.3782	$F_y=193.549$
	79	146.1875	2003.55			

The critical value of F for df (1, 78) is 3.96 at .05 level. The obtained value of  $F_x$ , 0.060 is less than the critical value indicating an insignificant difference in achievement before experimentation. But the obtained value of  $F_y$  is 193.549 is much greater than the critical value, 6.96 at .01 level ( $F_y=193.549$ ,  $P<.01$ ). So it can be tentatively concluded that there is significant difference between the Post-test means of the groups. The final (y) scores were adjusted for differences in initial (x) scores. The summary of ANCOVA of pre-test and post-test scores of pupils in experimental and control group is given in table 5.8. The results of ANCOVA are given in table 4.

**Table 4**

Result of Analysis of covariance of pre-test and post-test scores

Source of Variation	df	SSx	SSy	SSxy	SSy-x	MSy-x	Fy-x
Between Groups	1	0.1125	1428.05	-12.675	1428.044	1428.044	191.157
Within Groups	77	146.075	575.5	6.3	575.2283	7.4704	
General	78	146.1875	2003.55	-6.375	2003.2719		

The calculated value of  $F_{y-x}$  is 191.157. This value is much greater than the critical value (6.96) at .01 level, implying that the post test scores of the experimental group and control group differ significantly, after they have been adjusted for initial differences. Further confirmation of the significance of the difference in post-test scores of both the groups was done by finding out the t value for adjusted y means which is detailed in table 5.

**Table 5**

Test of significance of difference in the post-test means (adjusted) of control group  
and experimental group

Group	M <sub>x</sub>	M <sub>y</sub>	SD <sub>y-x</sub>	SE <sub>y-x</sub>	t(df =77)
Control	3.15	10.2	2.733	.223	13.820 (p < .01)
Experimental	3.225	18.65			
General	3.1875	14.425			

Table 5 shows that the calculated value of t is 13.820; this value exceeds the table value 2.64 (df = 77) at .01 level. Hence the difference between the adjusted y means is significant. The adjusted mean of experimental group is greater than that of control group and thus confirms the superiority of experimental group over control group with regard to their achievement in the post-test.

## Conclusion

The achievement in social science of the students who learned through motivating opportunities model is considerably higher than that of the students learned through traditional teaching. Thus it can be inferred that the procedures followed in the learning of experimental group students helped them to achieve better. The motivating opportunities model could enhance the achievement in social science among upper primary school students more effectively than the traditional method of teaching. The statistical findings convincingly prove the hypothesis of the study. These findings are consistent with that of previous researches such as Goksu and Bolat (2020), Faiz and Avci (2020), Gilar-Corbi et al. (2020), and Essien et al. (2017). Hence there is great scope for motivating opportunities model in instructional planning and for efficient teaching-learning.

## References

- Bhatnagar, R. (2018). Challenges in teaching and learning of social science –The dual perspective. *PEOPLE: International Journal of Social Sciences*, 4(3), 519-532. <https://www.researchgate.net/publication/329540794>
- Essien, E. E., Enu, D., & Joseph, G. (2017). Achievement motivation towards social studies on students' academic achievement in tertiary institutions in Cross River State, Nigeria. *International Journal of Education, Learning and Development*, 5(5), 45-50. <https://www.researchgate.net/publication/32071633>
- Faiz, M., & Avci, E. K. (2020). Academic motivation levels of secondary school students and their attitudes towards a social studies course. *Review of International Geographical Education Online*, 10(2), 156-85. <https://doi.org/10.33403/rigeo.69>
- Feraco, T., Resnati, D., Fregonese, D., Spoto, A., & Meneghetti, C. (2022). An integrated model of school students' academic achievement and life satisfaction. Linking soft skills, extracurricular activities, self-regulated learning, motivation, and emotions. *European Journal of Psychology of Education*. <https://doi.org/10.1007/s10212-022-00601-4>
- Ghbari, T. (2016). The effect of ARCS motivational model on achievement motivation and academic achievement of the tenth grade students. *The New Educational Review*, 43(1), 68-77. doi: 10.15804/tner.2016.43.1.05

Gilar-Corbi, R., Pozo-Rico, T., Castejón, J., Sánchez, T., Sandoval-Palis, I., & Vidal, J. (2020). Academic achievement and failure in university studies: motivational and emotional factors. *Sustainability*, 12(23), Article 9798. <https://doi.org/10.3390/su12239798>

Goksu, I., & Bolat, Y. I. (2020). Does the ARCS motivational model affect students' achievement and motivation? A meta-analysis. *Review of Education*, <https://doi.org/10.1002/rev3.3231>

Hardré, P. L., & Miller, R. B. (2006). Toward a current, comprehensive, integrative, and flexible model of motivation for instructional design. *Performance Improvement Quarterly* 19(3), 27-54. doi:10.1111/j.1937-8327.2006.tb00376.x

Keçe, M. (2014). Problems related to the teaching of social studies and suggestions for solution: Teachers' opinions based on a qualitative research. *Procedia - Social and Behavioral Sciences*, 122, 388-392. doi: 10.1016/j.sbspro.2014.01.1359

Quílez-Robres, A., Moyano, N., & Cortés-Pascual, A. (2021). Motivational, emotional, and social factors explain academic achievement in children aged 6–12 years: A meta-analysis. *Education Sciences*, 11(9), 513. <https://doi.org/10.3390/educsci11090513>

Vu, T., Magis-Weinberg, L., Jansen, B. R. J., Atteveldt, N., Janssen, T. W. P., Lee, N. C., Han, L. J., Raijmakers, M. E. J., Sachisthal, M. S. M., & Meeter, M. (2022). Motivation-achievement cycles in learning: A literature review and research agenda. *Educational Psychology Review*, 34, 39-71. <https://doi.org/10.1007/s10648-021-09616-7>

