



## The Construction and Try-out of Networks for Some Topics of Hindi for STD. XII Arts Stream

**Kalpesh Thakorbhair Patel**

Research Scholar,  
Bhagwan Mahaveer University, Vesu, Surat,  
Gujarat, India.

---

### Article Info.

Received on 09 Jan 2021

Revised on 28 Jan 2021

Accepted on 29 Jan 2021

---

### Keywords:

Construction, Try-out,  
Networks, Hindi, STD. XII,  
Arts Stream

---

### ABSTRACT

*The activities specified and interrelationships as well as interdependence between subtopics are shown by as arrow diagram. The last six topics of Hindi text book of Std. XII were taken into consideration for the present study. The Objective of the study were To increase the level of understanding of the pupils of higher Secondary classes of Std XII Arts Stream in the different topics of "Hindi" which are to be taught by using 'Network diagram etc. The Hypothesis was the achievement of a group of pupils who are taught by the teacher through the use of networks will be more than that of a group of pupils who are taught by the traditional method. It was an experimental study. The Analysis and Interpretations of the data were the first directional hypothesis was accepted at 0.05 levels etc. Major Findings was the teaching of Hindi through the networks was found better than the traditional method in terms of the achievement of the students.*

---

### Introduction

One of the most important problems facing education is to make learning not merely less time consuming and more efficient, but also more interesting and exciting and this objective is to be achieved within the limited resources available. The modern techniques of

management and communication can be employed fruitfully in the utilisation of available resources to the optimum to achieve the desired goals. The suitable planning can be made by applying the concept of systems approach in improving the process of classroom teaching. The effective planning of teaching can be made by integrating the different aspects of teaching learning process. The important five aspects of teaching may be-

- (1) The linguistics aspect
- (2) The audio aspect
- (3) The visual aspect
- (4) The system aspect
- (5) The pedagogical aspect

These teaching aspects are well taken in the operational research technique of network analysis.

In the present study the investigator selected this important technique of network analysis for construction and to check is what extent it can be fruitful to raise the level of student's attainment. The investigator has selected few topics of Hindi for STD XII to analyse the content on the basis of the technique.

### **Statement of the problem**

The problem under study could be state as "The construction and Try-out of Networks for some Topics of Hindi for STD XII Arts Stream."

### **The Conceptual Frame Work**

The operational definitions of the terms used in this study are as follow:

#### **\* Construction**

It covers the content analysis of the subject matter, decisions regarding activities, preparing network diagrams and the analysis of the output in terms of instructional objectives.

#### **\* Try out**

It means to know the efficiency of teaching through network diagrams.

### **\* Networks**

It is a diagram showing a logical sequence of activities which must take place in order to complete the teaching of a particular topic. The activities specified and interrelationships as well as interdependence between subtopics are shown by as arrow diagram.

### **\* Hindi**

Hindi is a major category of academic disciplines, concerned with society and the relationships among individuals within a society. It in turn has many branches, each of which is considered a "Hindi".

In present study “Hindi” means the text book of Hindi of STD XII, Arts Stream prepared by the school Text Book Board of Gujarat State. The last six topics of this text book were taken into consideration for the present study.

### **Objective of the study**

1. To increase the level of understanding of the pupils of higher Secondary classes of Std XII Arts Stream in the different topics of “Hindi” which are to be taught by using ‘Network diagram’
2. To evaluate the effectiveness of the teaching using network diagrams compared to the teaching through the traditional method.

### **Hypothesis**

1. The achievement of a group of pupils who are taught by the teacher through the use of networks will be more than that of a group of pupils who are taught by the traditional method.
2. There will not be any mean significant difference on post test scores between the high achievers of the group of pupils taught through the use of the networks.
3. There will not be any mean significant difference on post test scores between the low achievers of both the groups.
4. There will not be any mean significant difference between high achievers of the group of pupils taught through traditional method and low achievers taught through the use of networks.

5. There will not be any mean significant difference between low achievers of the group of pupils taught through traditional method and high achievers taught through the use of Networks.

### **Research Methodology**

It was an experimental study. The samples of the study were consisted of 101 pupils studying in Std. XII of Arts Stream of Anglo Urdu High School, Sodagarwad, Surat. Two equivalent groups were formed for the experiment on the basis of previous achievement scores of Std. XI, I.Q. as measured by Desai Bhatt group test of intelligent, age and sex. Finally 92 students were selected as the sample and were classified into two groups, each having thirty seven (37) boys and nine (9) girls. Group-A was considered as the control group using traditional method and Group-B was considered as an experimental group using networks for teaching.

The investigator prepared networks for six chapters after deciding inter-dependence between each unit, sub units and different teaching points of Hindi. It was distributed over 50 periods with the provision for revision of each chapter. Content of each chapter to be covered was analysed and allotment of activity to each micro-content was worked out.

Besides developing net works for six chapters investigator also developed a post test to know the achievement of the students of the two groups after experimentation. The post test was divided into seven main test items, which was consisted of seventy objective test items of 80 marks.

To test the formulated hypothesis 't' test was used. For this investigator calculated mean, S.D. and standard error of mean. All the calculations were made through the computer.

### **Analysis and Interpretations of the data**

#### **I Analysis of the post test scores**

To study the effectiveness of teaching through networks the investigator obtained post test scores and compared with the another group taught traditional method.

**Table-1**

**A Comparison of post Test scores of two groups**

<b>Statistics</b>	<b>Group-A Traditional</b>	<b>Group- B Experimental</b>
<b>N</b>	36	36
<b>Mean</b>	26.77	38.98
<b>S.D.</b>	19.2	21.3
<b>‘t’ Value</b>	2.29	

The obtained value of ‘t’ was 2.29, which was found significant at 0.05 level. It could be inferred from the result that the teaching through the networks was found significantly better than the traditional method in terms of the achievement of the students of Std. XII in the subject of Hindi. Thus, the first directional hypothesis was accepted at 0.05 levels.

## **II Comparisons of the post test scores of High Achievers of Group-A with the Group-B**

When the high achievers (who secured 61 and above percentage of marks in Hindi at Std. XI) of two groups were compared on the basis of their mean post-test scores, the obtained value of ‘t’ was 1.23 . Which was not found significant even at 0.05 levels. Thus, HO (2) could be accepted.

## **III Comparisons of the Post test scores of Low achievers of Group-A with the Group B**

When the low achievers (who secured 51 to 60 percentage of marks in Hindi at Std. XI) of two groups were compared on the basis of their mean post-test scores, the difference between two groups was not found significant. Thus, the Ho (3) could be accepted.

## **IV Comparisons of the post Test scores of the High Achievers of Group-A with the Low Achievers of Group-B.**

When high achievers of group-A were compared with the low achievers of Group-B, the obtained value of ‘t’ was 1.11, which was not significant. Thus the Ho (4) could be

accepted. From the result, It could be concluded that the learning through networks considerably help the low achievers of raise their level of achievement.

**V** Comparison of Low achievers of Group-A with the High Achievers of Group-B in terms of their Post test Scores.

**Table II**

<b>Group</b>	<b>No. of Students</b>	<b>Mean</b>	<b>S.D.</b>	<b>‘t’ value</b>	<b>Level of significance</b>
<b>Low Achievers of Group-A</b>	12	23.43	19.1	5.0	Significance at 0.01 level
<b>High Achievers of Group-B</b>	13	44.34	12.3		

The above table revealed that the obtained ‘t’ value 5.0 was significant at 0.01 level. Thus the HO (5) could not be accepted and it was concluded that the use of networks was found useful for both low as well as high achievers to raise their level of achievement.

### **Major Finding**

1. The teaching of Hindi through the networks was found better than the traditional method in terms of the achievement of the students.
2. The high achievers of two groups (Experimental used networks and control group used traditional method) were not found significantly different in terms of their post test scores.
3. The Low achievers of two groups (Experimental & Control groups) were not found significantly different in terms of their post test scores.
4. The high achievers of Group-A (Used traditional method) and low achievers of Group-B (Used Networks) were not found significantly different in terms of their post test scores.

5. The low achievers of Group-A (Traditional) and high achievers of Group-B (Networks) were found significantly different in terms of their post test scores. The high achievers of experimental group were better in their post achievement.

## References

1. Elsel, H.A & Frajer, H.V (1977). *Operational Research Hand Book*. London: Macmillan Press.
2. Shah, C.Z. (1978). *The Operational Research Technique of Networks Analysis Applied to the Syllabus of Algebra for Std. VIII of Secondary Schools of the state of Gujarat (India)*, Unpublished M.Phil. Dissertation, U.K. University of Birmingham.
3. Shah, D.A. (1989). *An Operational Research technique of Networks Analysis applied to the syllabus of Chemistry for the higher Secondary Classes of the state of Gujarat*, Unpublished Ph.D. Thesis, Surat: Veer narmad S.G. University.
4. Sharma, S.D. (1988). *Operational Research (8<sup>th</sup> ed.)* Meerut: Kedar Nath- Ram Nath & Co.