

An Explore Effect of Instructional Programme on Reading Comprehension in English Subject at Selected Primary Schools in Gujarat

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Abstract: This study on the design and effectiveness of a strategic instructional program, focusing on English comprehension among eight standard students in Kadi, Gujarat. Drawing from Gene and Bridg's theory, the research examines whether strategic instructional program designed with or without Gene and Bridg's theory influence English comprehension differently. A sample of students participated in a quasi-experimental study, with one group exposed to instructional programme with Gene and Bridg's theory and the other without. Using instructional programme was developed and validated against instructional design standards. post experimentation involved administering an English comprehension Test. Results indicate significant difference in English comprehension between the two groups, suggesting that designing instructional programme based on Gene and Bridg's Theory does enhance students' English comprehension. This outcome underscores the compare with other research into alternative learning outcomes in English education.

Keywords : Explore, Effectiveness, English, Reading comprehension, Theory of Learning and Instruction, Primary School

1. Introduction

Teaching English in primary school for non-English speaking students is crucial for their academic and professional future. As a global language, English enables communication with people worldwide, providing access to vast educational resources and enhancing career prospects in multinational industries. Research by Crystal (2003) supports the notion that English as a global language opens up significant educational and professional opportunities. Early exposure to English also promotes cognitive development, cultural awareness, and social integration. Studies by Bialystok et al. (2012) show that bilingualism, including English proficiency, enhances cognitive flexibility and executive functions such as problem-solving and multitasking. Additionally, learning English fosters confidence and independence, empowering students to pursue opportunities without language barriers. Overall, incorporating English education at an early age equips students to thrive in an interconnected world.

Extensive international research has focused on the advancement of reading abilities during primary school years. Research on reading comprehension processes and strategies has received less focus due to the emphasis on early reading instruction and the necessary decoding skills for alphabetic codes (Dewitz & Dewitz, 2003). Studies on early reading have proven that having phonological awareness and accurate word decoding are key factors for successful reading progress (Stanovich, 2000). Moreover, studies show that children who are able to read words fluently and accurately comprehend texts more successfully than those who have difficulty with these skills (NAEP, 2002).

Consequently, it seems that Primary and secondary schools in India face significant barriers to English language comprehension, such as reliance on traditional rote-learning methods, limited teacher expertise, and lack of exposure to the language beyond the classroom. Research suggests that by merging interactive teaching methods with contextually appropriate materials, comprehension can be enhanced. For instance, Prasad (2019)

discovered that students' involvement and understanding of English readings were improved when interactive activities and culturally suitable stories were utilized. Additionally, multimedia resources and collaborative learning methods have been shown to have a positive impact on language comprehension when they cater to different learning styles and promote active participation, as demonstrated in the study by Ramaswamy and Singh (2020). Furthermore, Sharma et al. (2021) emphasized the importance of continuous formative assessments in improving overall understanding through providing immediate feedback and enabling personalized learning paths.

Design Aspects of programme Guidelines from Gagne and Briggs Theory

It is important to understand two words 'Teaching' and 'System' while talking about the teaching system of Gene and Briz. According to Gene and Bridges (1979). - *"System means a human act of complex nature to achieve the objectives established on the basis of social values. While teaching means such a cluster of events which affects the learner in such a way that the learning becomes easy."*

But let us know why education is considered as teaching in present research. Gene and Bridges (1979). - *"Education is not merely a process in which the teacher presents information in the classroom and the learner learns only through the information offered by the teacher. This latter includes so many internal procedures. Each of which affects the outer forces of every learning."*

Teaching system means any of the teaching method or curriculum. Trying to define the teaching system in simple words it can be said that, - *"Teaching system is an ordered (Systematic) way to attain the decided objectives or learning."*

The purpose of learning aims at activating the students for learning and to offer a base for that. Gene and Briz have divided the entire teaching system into 14 steps with a view to developing the small units (lessons) or teaching matters that can be developed as teaching system. The 14 steps of teaching system are as under:

1. Analysis of Needs, Objections and Priorities

This step enables one to understand why reading is necessary for this study as well as in daily life. Language is used in a certain mode in interaction between two persons, in govt. dealings in temple, in academic institutes etc. It is only through language that a man communicates his own thoughts and vice versa. Overtimes, language-less life becomes a headache for people. A student could enjoy literature, understand science, turn the pages of history, study starts and earth only through the use of language. The invaluable treasure of knowledge could be preserved right from the ancient times up to present age. Its credit goes to language.

2. Analysis of sources, controls and alternative distribution system

The present step provides strength (force) to fulfil the goal of teaching system. In the first step we examined the importance of reading for students and the necessity of reading. Reading of course, satisfied his reading needs. But on another point arises that the students no doubt read, but is their reading proper? Can be read well? Does he not face difficulty in reading? If the answer is "Yes" the students need to be imparted education in reading.

In short, there are so many sources of education for students, but there is limit for everything. Of course, a child gets education from family but though this being primary, it is not formal. So many technical drawbacks are there in home. These are removed in school. Besides, school education is formal. So, there is no risk of short comings of reading education for the student. But there is a drawback in school education, too. There is no scope of individual attention on particular student. Due to increasing population, and mass education, if a student is lacking behind in mass education, he continues to lack behind more and more for want of individual teaching. In regular curriculum of schools, reading education is imported step by step. Either some of the components of reading are developed.

3. Formation of scope and extent (Degree, Grade) of content; plan of Distribution system

When clarification about the curriculum has been made, we have to decide the annual goals, which can be a lamp post for curriculum constructors. This step decides which main goals are supposed to reach every year by the proposed curriculum.

4. Structure of Reading skill Development Programme course

In present step taking them as goal objectives. For this the course is divided in primary subpart and objectives are put in it. This step consists of clarification in the form of objectives of every sub-part of factors supporting the fixed reading skills of curriculum for the present research.

5. Analysis of the objectives of curriculum

Analysis of objectives of curriculum is extremely important for outline (profile) of teaching system. Present step is the core of teaching principles presented by Gene and Briz. According to them every teaching process passes through outer forces (factors) as well as inner forces too. This means that teaching work is specially an “Input Output Process.” For learners.

6. Definition of Descriptive objectives

The objectives of any curriculum are set when it is decided and the curriculum is accordingly divided into small units. Then the descriptive objectives are decided. A descriptive objective expects students to produce definite behaviour output for and through each unit of the syllabus. Before achieving every objective, he may study an entire unit and then curriculum.

7. Construction of Literature and Medium – Selection

New literature has to be prepared when new curriculum is to form considering this fact, the literature is prepared for the present research.

On the basis of foregoing steps, the original programme for reading skill was organized and aspects was considered about the content.

8. Preparation of Literature

Every literature construction is innovative and of special important in its own. Yet if it is constructed according to literature formation structure, it will be scientific.

In view of this the literature for present study is prepared in consideration of some fixed steps.

- Decided policy for literature production
- Probable interest of readers
- Real Interest of Readers

9. Prepare Lesson – Planning

As seen in the preceding chapter the entire programme is based on the learning principles of ‘Gene’ and ‘Briz’.

According to them the teaching work should be conducted in a step. Then the proper outcome of teaching process can be obtained considering this, the programme was arranged within the structure of 9 steps. They are as under:

- 1) To Concentrate on Acquisition.
- 2) To inform the objective to learner.
- 3) To provide stimulants to recall the points learnt before.
- 4) To Present stimulants.
- 5) To provide learning guidance.
- 6) To create behaviour.
- 7) To give feedback.

- 8) To evaluate the behaviour
- 9) To increase retention and transition.

10. Planning of Evaluation of students' achievement

First of all, entire literature based on teaching system should be selected. It is followed by lesson planning. Then comes the way how to plan for evaluation tests given to learners as a part of syllabus considering this, the tests for evaluation for the present research.

11. Component Evaluation

Teaching work was suggested to be done by dividing entire syllabus in small parts according to teaching system. A test of every small component of the syllabus was administered at the end of teaching work. Component evaluation means the teaching aids utilized for the test and evaluation held form the component test. Importance of component evaluation was accepted because the entire syllabus was prepared to develop reading skill. The components were selected by keeping in view even the smallest matter.

12. Field Test and Revision

The reason for field test and revision in the present study was to construct an innovative programme. Field test was necessary in order to check the innovative being powerful for the students.

13. Comprehensive Evaluation

After the preparation (finalization) of curriculum, small units were evaluated through components test. Now it was necessary to offer component test of entire curriculum. So, a comprehensive test was also designed for the present research for the evaluation of entire curriculum.

14. Establishment and Expansion (Diffusion)

The information as to what steps should be taken for extensive expansion of the programme prepared on the base of teaching system. In consideration of this the list of information about the proper steps to be taken for extensive spread of the programme.

Thus, Gene and Briz insist up on these 14 steps for teaching work only then learners can achieve the fixed goals and learn systematically and orderly. A planned programme has been organized for reading skill development in view of these steps.

The main objective of the present research was to test the effectiveness of a strategic instructional programme designed to develop English reading skills for primary school students. Complete information about the experimental programme developed by the researcher for this purpose is presented below:

A) Aim : Each experimental plan is designed to achieve a specific purpose. The main objective of the present research was to develop a strategic instructional programme to develop English reading skills for primary school students.

- To inculcate various concepts of English reading skills in the students.
- Develop students' ability to interpret the data using English reading skills.
- Develop the ability of students to make practical use of English reading skills.
- To develop English reading speed ability and English comprehension ability in students.

B) Selection of the Content: In the present research, the researcher has constructed a strategic instructional programme to develop English reading skills, also by keeping in mind, the total seven aspects of English reading skills. The programme included the following main points and sub-points.

1) Visual Perception

- To identify words in the English language.
- To give a basic idea of option selection.
- To give a proper understanding of the meaning of English proverbs.

- To give an idea of identical diagrams.

2) Reading Pre-preparation

- Provide a proper understanding of words for pre-reading preparation.
- To give an understanding of actions and instructions.
- To give an understanding of the remedial form.

3) Reading Period

- To give reading comprehension of pairs of words.
- To give an understanding of reading words at the right speed.
- To give an understanding of reading sentences.
- To give a proper understanding of reading speed.

4) Punctuations

- To give a proper understanding of punctuation in English reading.
- Provide an in-depth understanding of paragraph reading using punctuation.

5) Vocabulary

- Provide a basic understanding of vocabulary for English reading.
- To give an understanding of various nouns.
- To give a sense of vocabulary through a list of everyday items.

6) Multi-Meaning

- To give an understanding of various and meaningful words.
- To give an understanding of multi-meaning words through options.

7) Discrimination Skill

- To give an understanding of discrimination through the story.
- Teaching, understanding, and realization of words through the story.

C) Educational Objectives: In the present research, the information given below is about the changes that are expected in the students after the trial of the strategic instructional programme prepared by the researcher to develop English reading skills.

- To develop an understanding of the basic concepts of English reading skills of students.
- To understand the importance of English reading skills in real situations of students.
- To learn and recognize words using the English alphabet for students.
- To learn and recognize the wrong words in English proverbs.
- To develop the use of English language vocabulary in practical situations for the students.
- To develop the ability to read words within some time without a pause and to develop reading comprehension using punctuation with modulation.
- To develop an understanding of increasing vocabulary.
- To learn to recognize synonyms and antonyms used in real situations.
- To learn and understand the different meanings of the same words used in reading.
- To develop the ability to give answers to story-based questions.

Thus, in the present research, a strategic instructional programme was constructed to develop English reading skills acknowledging the above factors. Ten experts' guidance was obtained on the primary form of the programme prepared by the researcher. A strategic instructional programme to develop English reading skills was the final form according to the suggestions of the experts.

Current status of English learning in Gujarat

The current status of English learning in Gujarat shows significant advancements, though challenges remain. According to the Annual Status of Education Report (ASER) 2022, there has been an improvement in English proficiency among students in rural areas of Gujarat, with more children able to read and understand basic English sentences compared to previous years (ASER: Annual Status of Education Report) (ASER Centre). This progress is attributed to the state's increased focus on enhancing English education through various initiatives aimed at improving teaching quality and resource availability. However, disparities persist between urban and rural areas. Urban schools generally have better-trained teachers and more resources for English instruction, while rural schools often struggle with a lack of qualified teachers and adequate learning materials. Efforts to address these gaps include government programs and NGO interventions focused on teacher training and the provision of educational resources (FluentU). Additionally, research by the Gujarat Council of Educational Research and Training (GCERT) indicates that while the state has made notable strides in primary English education, consistent efforts are needed to ensure that these improvements translate into higher-level language proficiency and better educational outcomes for all students across the state.

Research Problem

The research problem has been stated as “The effect of instructional programme on reading comprehension in English subject at primary school”.

Objective

- To construct and effectiveness of a strategic instructional Programme by constructing Gene and Briz for English reading comprehension in primary school students.

Hypothesis

- There will be no significant difference between the mean scores obtained by the students of the experimental group and the controlled group in the post-test on English reading skills.

Research Methodology

In the present research, it was necessary to know the validity of the experiment by controlling the variable other than the independent variable which affects the dependent variable. So, the post-test method was implemented in a group in a true experimental design. All the students selected for the group formation were included in the experimental group and the control group. The researcher collected the marks obtained by the students of both groups in the English subject in the first school examination.

The selected students in the experimental group were then consolidated in a separate classroom and assigned the task of teaching English subjects by the researcher according to a strategic instructional programme designed to develop English reading skills. At the end of each unit's teaching work, the responses of the students were obtained on the self-made post-test by the researcher. In the controlled group, students and their responses weren't given any attention. On the other hand, In the experimental group, students were given attention as well as the responses of the students were obtained on the self-made post-test by the researcher, which is shown below. In addition, the experiment was performed in three different schools to test the results. The two experimental groups with Quasi-Experimental: posttest only design were used for present study. So, posttest of English comprehension was to be applied on the two groups.

Group	Pre-test	Attention on Independent Variable	Post-test
Experimental	--	X	T ₂
Controlled	--	C	T ₂

Variables of the Study

The following variables are included in the present study.

Table 1: Types and Level of Variables of the Study

Types of Variables	Variables	Levels of Variable
Independent Variables	Sex	Boys
		Girls
	Academic Achievement	Higher
		Lower
Dependent Variables	Scores on Reading Speed	-
Controlled Variable	Standard VIII Gujarati Medium	-

Population and Sampling

All Gujarati medium primary school pupils in class VIII, as well as those attending Gujarat Secondary and Higher Secondary Education Board (GSHEB) schools, made up the study's population. The sample for this study was chosen using a random sampling technique. A list of the pupils enrolled in standard VIII of Mahesana district was created.

After dividing the students according to their academic performance, the researcher took their English test results from the previous semester and calculated the median. Students who scored two or higher than the median were considered as higher academic achievers, and those whose scores fell below the median were considered as lower academic achievers. Students were chosen as the study's sample, as indicated

Table 2 : No. of the Students selected in the sample according to variables

No.	Variable	Levels	No. of Students	Total
1	Gender	Boys	29	50
		Girls	21	
2	Academic Achievement	Higher	24	50
		Lower	26	

Delimitation of the Study: The present study was delimited to standard VIII students of Gujarati medium primary schools of Kadi city only.

Limitations of the study: In the present study, the Reading Speed test was used to collect data. So, the limitations of the tool were the limitations of the study.

Explanation of terms

Comprehension: Comprehension is a process of going to intended meaning or gist from little real meaning. To reach the final stage from the literal reading stage of presentation is called comprehension.

English Reading Skill: Reading is the process which develops using information and accessing information of series of written symbols and getting meaning from them.

Strategic Instructional Programme: The researcher will plan the strategic instructional programme of the 14 steps (stages) of the learning approach by Gene and Brizg to promote reading skills is known as Strategic Instruction programme.

Construction of strategic instructional program

The study was based on a thorough review of the literature, learning standards, experimental program designs, Gene and Brizg's theory of learning and instruction guidelines, design aspects of Gene and Brizg's theory in experimental programs, learning content analyses, and expert review. Standards and associated indicators were established based on the most widely accepted list of standards and indicators. In the current study, the researcher used the teaching system to create an academic curriculum based on Gene and Brizg's ideas. Seven of the fourteen steps in the educational system were followed in the preparation of Experimental Programme.

Tools of the study

Researcher developed a Comprehension Test of English as the research tools of this study. The test was built on learning objectives and consisted of 10 items in the form of varied forms of objective test items on English reading and comprehension from content analyses. The validity was done by specialists in the field of educational academicians and English education. The reliability of the test carried out on its test data, the calculated Cronbach's Alpha (α) coefficient was ($\alpha = 0.82$). This value has confirmed the reliability of the test of English. So, it is shown that the test is a valid and reliable test for the purpose of this research.

Finding and Discussions

To test the above null hypothesis, mean, Variance, Mean Difference, Standard Error and Critical Ratio were calculated from the mean scores obtained by the students of experimental group and the students of controlled group in the post-test on English reading skills, the details of which are given in table 3.

Table 3 : Data of scores obtained by the students in the post-test on 'English comprehension' in terms of type of study group

Type of Study Group	N	Mean	S.S.	S ²	SD	t-value	p-value
Experimental	23	24.38	471.48	21.43	4.62	-8.321	0.00001
Controlled	27	33.42	228.52	8.79	2.95		

From Table 3 shows the mean score of lower achievement students was (24.38) with a standard deviation (4.62). The mean score of the higher achievement students was (33.42) with a standard deviation (2.95). The t-value is -8.321. The p-value is 0.00001 ($p > 0.05$). The result is significant at $p > 0.05$. So, the data shows there is significant difference between lower achiever and higher achiever with reading speed.

In general, primary school students were classified based on their achievements in English by assessing their reading comprehension skills. Despite English not being the country's first language, students show impressive skills in grammar and reading comprehension. This indicates their mastery of the fundamental linguistic elements that are essential for learning English. Nonetheless, English language instructors are advised to place

greater importance on incorporating verbs in their lessons. Students need more engaging activities or practice in order to understand and ultimately excel in their utilization. Additionally, teachers can include divergent or analytical questions in class discussions to enhance students' Higher Order Thinking Skills (HOTS). In conclusion, teacher can continue searching for innovative methods and techniques for to teach reading comprehension to assist English learners.

Future Researches

The following future researches are suggested:

- 1) Studying the effects of designing educational learning materials with Gagne and Brizg's theory on developing higher cognitive skills such as problem-solving skills.
- 2) A fellow-up of the effects of designing educational e-learning with Gagne and Brizg's theory on developing English speaking, Writing, and creative imagination among elementary stage pupils.
- 3) Using developmental research methods in research of educational technology, e-Learning, and distance learning.

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