



EFFECTIVENESS OF WEB QUEST PROGRAMME FOR DEVELOPING CRITICAL THINKING SKILLS IN ENGLISH LANGUAGE AMONG SECONDARY SCHOOL STUDENTS

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ABSTRACT

Education should train the mind of the students to think openly and allow them think independently without expecting them to rote the facts and theories. Therefore, it is rightly said by Albert Einstein that we need to provide the learning experiences which train the mind to think rather than allowing them to learn the facts blindly. Students need to understand the reason behind every fact. This can be possible through various skills and critical thinking is one of the skills amongst all which emphasis and train the mind of the students to think, to analyze, to apply, to summarize, to synthesize the information in meaningful way. Here, technology supporting in many ways to train the mind of students. Web Quest Programme is one of the eLearning platforms, which help the students to think differently and providing an opportunity to solve the problems through using critical thinking skills. Present study discuss about the effectiveness of Web Quest Programme for developing critical thinking skills in English language among secondary school students. Sample size is the 102 of Standard VII the SSC board students studying in the English Medium School consider for the study. The t-test scores between the control and experimental group for critical thinking skills is 0.00. It indicates that there is a significant effect of Web Quest Programme on students' Critical Thinking Skills.



KEY WORDS: Web Quest Programme, Critical Thinking Skills.

INTRODUCTION

Education should prepare the child for the future. In the present scenario, students have to understand how to solve the problems, how to synthesize the knowledge, how to analyze the situation and people around them along with the content given in the textbook. Along with the teaching content, if teacher is focusing on these skills it will provide wings to the students to fly very high. Teachers have to incorporate these skills in the regular teaching. As rightly mentioned in NCF 2005, "The curriculum must enable children to find their voices, nurture their curiosity to do things, to ask questions and to pursue investigations, sharing and integrating their experiences with school knowledge rather than their ability to reproduce textual knowledge."(National Curriculum Framework 2005)

Here also more importance given to the active participation of students in the learning process through various activities which will lead to the development of the various skills. Learning process should lead to the exploration and through this students are indirectly learning many skills like, analyzing the content, synthesizing the knowledge, comprehending the content, connecting new knowledge with the textual content, answering the questions independently. One of the important aims of the education is to make students independent.

ICT has an important role in the making learning more meaningful and effective. ICT is one of the important aids to the teacher to provide meaningful experiences. ICT has made rapid strides in the past couple of decades. The immense potential for inducting ICT to come to the aid of Indian education in myriad innovative ways has not been harnessed. ICT now provides a new and potentially highly effective vehicle for advancing the quality of education at all levels; this issue needs to be seriously explored and the alternatives expounded.”(National Policy on Education, 2016)

As given in NPE 2016 emphasis on use of ICT in education for ensuring quality education and making learning process more interactive and eloquent. Web Quest is also one of the effective tools to make learning process very easy and remarkable. This is one of the online tools which provide a platform to explore to the students.

WEB QUEST PROGRAMME

Dr. Bernie Dodge has developed the Web Quest model. Here students learn from the Web-based resources prescribed by the teacher. Inquiry based structure of the Web Quest Programme helps the students to segregate the information and think the content from different angles and from varies prescriptive. This helps them to apply the concept in their daily life.

Web Quest Programme is learner centered approach here teacher is the facilitator in the learning process. Learner will come up with the product after completion of the Web Quest. Web Quest includes various aspects of constructivism theory like, cooperative learning, situational learning, scaffolding, meaningful leaning, authentication in learning, active learning, students were engaged in the learning.

Teaching language is challenging task. In language there are many aspects which require reference and additional information. It may about poet, author or information about his work, his attitude, his contribution in literature and many more. Web Quest provides the platform to develop these LSRW (Listening, Speaking, Reading and Writing). In language comprehension of the content is also very important.

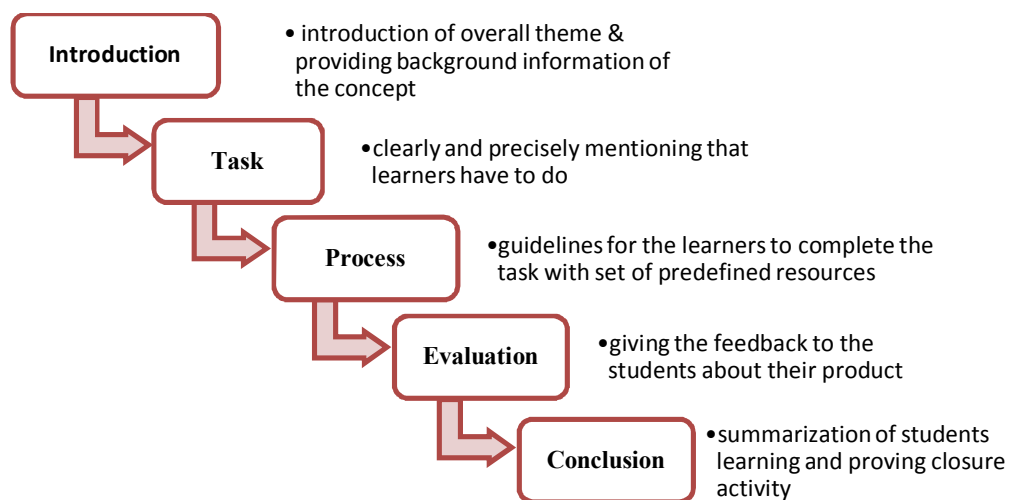


Fig 1: Web Quest Programme Structure

Critical Thinking Skills

Critical Thinking Skills the concept is very old and it is there from the time of Socrates. He has started using these skills 2,500 years ago. It was used as probing questioning where person can justify his/her understanding of the concept. He has established the importance of asking questions before accepting any ideas as worthy or belief. He recognized the importance of seeking evidence, closely examining reasoning

and assumptions, analyzing basic concepts, and tracing out implications not only of what is said but of what is done as well.

According to Paul, Binker, Adamson, and Martin (1989), Critical thinking is the art of thinking about your thinking while you are thinking in order to make your thinking better, more clear, more accurate, or more defensible.

Critical thinking skills are problem solving, decision making, analyzing, applying, synthesizing, conceptualization and evaluating. These all the skills are interrelated with each other and they are incomplete without each other.

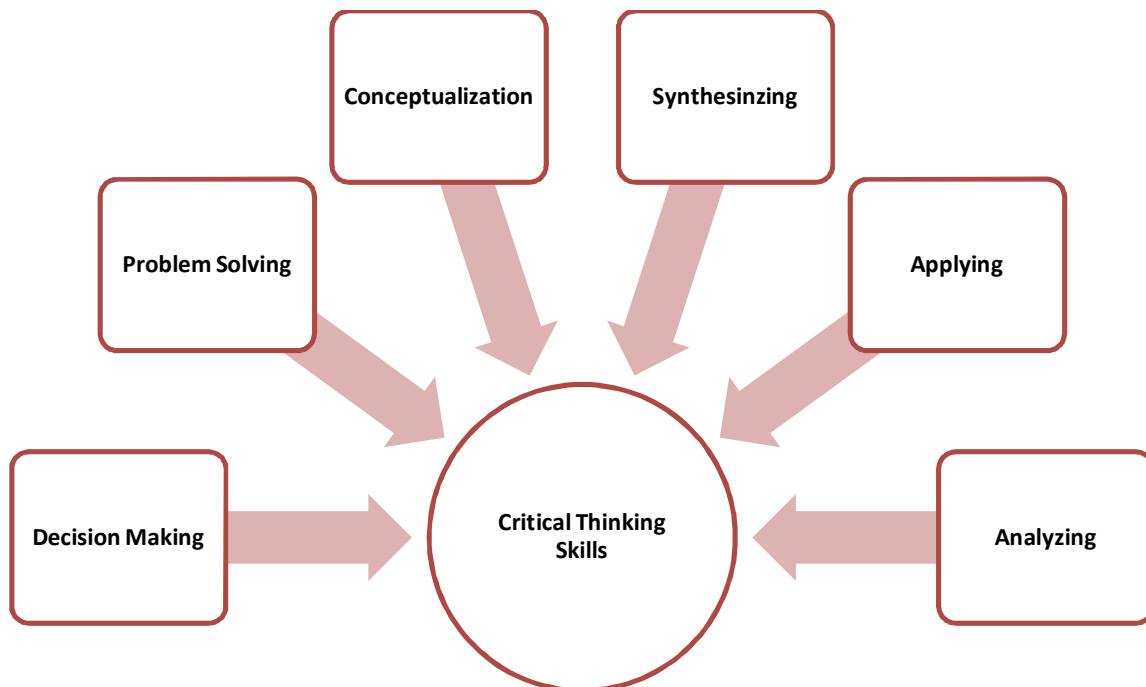


Figure 2: Critical Thinking Skills

NEED OF THE STUDY

Language is the important aspect for communication and comprehension of the content. Getting fluency on the language and comprehension of the language is the main objectives of the language. Learning a language is not tough task but how students are learning that language is very essential and in which environment and what kind of resources used to learn that language is very important. Hence, language has to be taught very efficiently with effective resources. Web Quest is one of the e-Learning tool which helps in enhancing the skills associated with the language. When the resources are interesting and effective, this will lead the students to take interest in the learning language. Teaching language through various innovations is the need. So that students get motivated to learn the language. Through these innovations in students develops many skills like, analyzing, summarizing, evaluating, problem solving. Along with all the skills students will apply the knowledge in their life and students relates it with their own life.

RESEARCH QUESTIONS

1. Does Web Quest Programme in English language help to develop critical thinking skills?
2. What is the effect of Web Quest Programme in English language on developing critical thinking skills?

Aims of the Study

1. To develop a programme using Web Quest for teaching English language.
2. To study the effectiveness of Web Quest Programme in English language on developing critical thinking skills among secondary school students.

OBJECTIVES OF THE STUDY

1. To study the pre-test scores of the students' Critical Thinking Skills for experimental and control group
2. To develop Web Quest Programme based on Dr. Bernie Dodge's guidelines by constructing processes for the students of standard VII of experimental group in teaching of English language.
3. To study the post-test scores of the students' Critical Thinking Skills for experimental and control group.
4. To study the gain scores of Critical Thinking Skills for experimental and control groups.
5. To estimate the effect size of the treatment on the experimental group for Critical Thinking Skills.
6. To compare the pre and post test scores of the students' Critical Thinking Skills for Experimental Group.
7. To compare the pre and post-test scores of the students' Critical Thinking Skills for Control group.

OPERATIONAL DEFINITIONS FOR THE STUDY

Web Quest Programme

In a Web Quest the learner is presented with problem and supporting Web resources. The learner is expected to use these Web resources to find the solution to the given problem. It is a group learning strategy and learner has to construct his/her knowledge through problem solving technique, by interacting with others and work on the task assigned co-operatively.

A Web Quest has six Critical Components i.e. Introduction, Task, Process, Resources, Evaluation and Conclusion.

Critical Thinking Skills

For the present study critical thinking skills is the intellectual disciplined process of activity used for English language when learner skillfully conceptualizes, applies, analyzes, synthesizes, solves problem, makes decisions and evaluates the information from observation, experience, reflection, reasoning or communicating, as a guide to belief and action.

DESIGN OF THE STUDY

Method:

For the present study the researcher has used pre-test post-test nonequivalent group quasi-experimental design. A treatment was given to experimental group and no treatment to the control group. The difference of the mean of the pre-test, post-test scores were tested for statistical significance for both experimental and control group.

Sample:

The sample selected consisted of standard VII students from English Medium schools of same socioeconomic status and from the nearby locality. The total sample was 102 students, 46 in the experimental group and 56 students in control group.

Tool:

The researcher had prepared the tool to analyses the effects of Web Quest Programme on students' Critical Thinking Skills. Items were consisting of problem solving, decision making, analyzing, synthesis, applying and conceptualization. The Split-half method was used to establish the reliability of the tool. Split-half method establishes the internal consistency of the scale by using the reliability software. The reliability index of the tool was found to be 0.73 which was high and hence the tool was found to be internally consistent. Cronbach's Alpha of the tool was found to be 0.73. Apart from this researcher had prepared Web

Quest Programme to develop the Critical Thinking Skills. Due care was taken to ensure the validity and reliability of the tool.

RESULTS AND DISCUSSION

Table 1: Difference in Pre-Test Scores of Critical Thinking Skills for Experimental and Control Groups

Variable	Group	N	Mean	SD	t-ratio	p-value	Level of Significance
Critical Thinking Skills	Experimental	46	45.41	14.30	0.92	0.356	Not Significant
	Control	56	42.5	16.95			

Critical Thinking Skills includes skills like problem solving, analyzing, synthesizing, applying, conceptualization and decision making. All these skills are very essential for the secondary school students who all are in the age of adolescence. In this age groups, students wanted to explore and having many questions in their mind. Critical Thinking Skills trains them to ask questions in logical way and along with that it provides the logical sequence to solve the problem rationally and scientifically. Along with the asking questions, exploring on the content and solving problems, students are able to justify themselves in comprehension of the content. Language provides base to students to identify and solve the problems. Hence, through language they are having opportunity to enhance these skills. In language textbook many of the prose lessons provided with the problems. Here students need to be train to identify the problem and providing the solution to it along with the application of that content in their life. Students encouraged to write the creative compositions where they can comprehend the concept, analyze the different aspects of the problems, taking decision to solve the problem along with that combing all the aspects and seeing situation as a whole. These can be possible in learning of all the aspects of language.

From Table-1, it can be interpreted that there was no significance difference found between experimental and control groups' pre-test scores of Critical Thinking Skills. It suggests that both the groups were on the same level in terms of Critical Thinking Skills.

Table 2: Difference in Post Test Scores of Critical Thinking Skills for Experimental and Control Groups

Variables	Group	N	Mean	SD	t-ratio	p-value	Level of Significance
Critical Thinking Skills	Experimental	46	70.26	21.21	3.570	<0.0001	Significant at 0.01
	Control	56	55.23	21.09			

From Table-2, it can be interpreted that there is difference between both the group's scores. It suggested that both the group's scores for the Critical Thinking Skills are different. It suggested that treatment was effective on students' critical Thinking Skills. Experimental group is higher in the dimensions of the Critical Thinking Skills. The reason for difference in the scores of the experimental and control group would be that Web Quest Programme had included many activities which helped the students to enhance their Critical thinking Skills in learning of language in compare to the control group.

Table 3: Difference in the Pre and Post-Test Scores of the Students' Critical Thinking Skills for Experimental Group and Control Group

Variables	Groups	Test	N	df	Mean	SD	t-ratio	p-value	Level of Significance
Critical Thinking Skills	Experimental	Pre	46	45	45.41	14.30	9.49	<0.0001	Significant at 0.01
		Post			70.26	21.21			
	Control	Pre	56	55	42.50	16.95	7.31	<0.0001	Significant at 0.01
		Post			55.23	21.09			

Table-3 shows that there is difference between both the group's scores. It suggested that both the group's scores for the Critical Thinking Skills is different. Experimental group score's slightly higher than control group. It suggests that control group has shown improvement in the scores. This could be happened because the subject teacher teaching the content through various activities and try to allot the time for development of the skills which are important for students. Whereas the experimental group's score is little higher this could be because Web Quest Programme has helped the students to explore the content and that helped the students to comprehend the content in much better way. Along with that Web Quest Programme has many tasks given to the students related to the content which helped them to analyze, synthesize, apply, decision making and problem solving along with conceptualization. These skills helped the students to justify and clarify their own ideas in front of others.

Table 4: Difference in the Gain Scores of Critical Thinking Skills for Experimental and Control Groups

Dependent Variable	Groups	N	df	Pre-test	Post-test	Gain Scores	Gain Scores SD	t-ratio	p-value	Level of Significance
Critical Thinking Skills	Experimental	46	95	45.41	70.26	24.85	17.75	3.85	0.0002	Significant at 0.01
	Control	56		42.5	55.23	12.73	13.02			

From Table-4 given above it can be inferred that Web Quest Programme has helped in developing Critical Thinking Skills in the students of standard VII for experimental group.

Table 5: Effect Size of the Treatment on the Experimental Group for Critical Thinking Skills

Dependent Variable	Mean of Posttest Experimental Group	Mean of Posttest Control Group	SD of Control Group	Magnitude of the Effect	Effect size
Critical Thinking Skills	70.26	55.23	21.09	0.71	Moderate Effect

Table-5 indicates that the treatment has moderate effect on the experimental group in development of Critical Thinking Skills as per the Wolf's criterion. This shows that the Web Quest Programme has moderate effect on the development of the Critical Thinking Skills on standard VII students in teaching of English language.

SUGGESTIONS BASED ON THE PRESENT STUDY

- Teacher should provide the student task and situations where students can explore and solve the problems using their previous knowledge
- Teacher can give the knowledge in parts and ask students to synthesize the parts in logical sequence and make it meaningful
- Self-evaluation is very important and our students should be given training in that so that they will be independent and honest in judging their own qualities and capabilities
- Teacher can plan activities like concept map which will make student's concepts strong.
- Teacher should give creative and free composition to write which will enhance their skills of applying. Student will relate the concept with their real life experience and use their previous knowledge.
- Teacher should give unseen reading comprehension based on critical thinking skills which will develop the all the skills involved in that.

- Teacher should encourage the students to reflect upon their learning and try to always justify themselves based on their understanding which will help them to clarify their concept and develop confidence when they themselves justify the concepts with sufficient number of evidences and examples

CONCLUSION

From the present research it can be concluded that Critical Thinking Skills have important role in developing young mind to ask questions and training them to develop the skills of inquiry.

According to the Lady Bird Johnson, Former First Lady of the United States, "Children are apt to live up to what you believe of them." Teacher should not doubt students' capabilities and skills. Teacher should always believe in students. As per the teacher's believe, students will perform. Hence, teachers have to trust on students' proficiencies. This specifies that the students will perform exactly the way teacher thought and believed.

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