CHAPTER VI

FINDINGS, IMPLICATIONS AND SUGGESTIONS

6.0 INTRODUCTION

Every piece of research, embodies a set of certain findings, suggestions and implications of practical value, special meaning for all the stakeholders engaged in a particular area of concern; and in the field of education, in special, the whole community is directly or indirectly involved from pupils to parents, teachers to teacher educators, administrators, guidance workers to policy framers to innovators and inventors, and, indeed, from the common rung of people to experts, to share and utilize the experience and knowledge of research as guidelines for educational reforms to help cause, in turn, quality improvement in the process and product of schooling. Thus, based on the analysis of data and interpretation of results, a set of findings and conclusions are made available, along with suggestions that need to be focused on for further research in the related field.

6.1 FINDINGS AND THEIR IMPORTANCE

In the light of study objectives; and null hypotheses tested and rejected on valid and reliable tools, in most situations, it is by and large established that the intervention of multi-media inputs in the teaching of English to 9th class students has a positive advantage over the traditional pedagogy, besides its added merits in being pro-active across the board in its inter and intra-interaction and relationship with various variables like cognitive styles, achievement motivation as well as academic achievement. Hypotheses were identified that could make academic achievement in the teaching of English, and for that matter any other school subject, more lasting and meaningful under the umbrella impact of multi-media intervention in the teaching-learning process as also in facilitating empowerment of the teaching-learning community in quite a big way.

Both experimental and the control group students, found comparatively matching, with no significant difference in academic achievement on pre-test, the experimental group gained the benefits of multimedia intervention to boost their
academic achievement in English over their counterpart control group students taught in the traditional way; as also along other variables. The import of findings is manifold with the significant difference in academic achievement in the context of impact of multimedia in relation to aspects like:

A. **Positive Impact Narrations**

- Students having field independent cognitive style have better academic achievement in comparison to students having field dependent cognitive style.

- Students having high achievement motivation have better academic achievement in comparison to students having low achievement motivation.

- Students taught through multimedia instruction have better academic achievement in comparison to students taught through traditional method of instruction.

- Field independent students having high achievement motivation have significantly higher academic achievement than the field independent students having low achievement motivation.

- Field independent students having high achievement motivation have significantly higher academic achievement than the field dependent students having high achievement motivation.

- Field independent students having high achievement motivation have significantly higher academic achievement than the field dependent students having low achievement motivation.

- Field independent students taught through multimedia instruction have significantly higher academic achievement than the field independent students taught through traditional instruction.
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• Field independent students taught through traditional instruction have significantly higher academic achievement than the field dependent students taught through traditional instruction.

• Field dependent students taught through multimedia instruction have significantly higher academic achievement than the field dependent students taught through traditional instruction.

• Students with high achievement motivation taught through multimedia instruction have significantly higher academic achievement than the students with high achievement motivation taught through traditional instruction.

• Students with high achievement motivation taught through multimedia instruction have significantly higher academic achievement than the students with low achievement motivation taught through traditional instruction.

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B. No Impact Narrations

No significant difference exists in academic achievement of students with field independent cognitive style having low achievement motivation and students with field dependent cognitive style having high achievement motivation.

No significant difference exists in academic achievement of students with field independent cognitive style having low achievement motivation and
students with field dependent cognitive style having low achievement motivation.

- No significant difference exists in academic achievement of students with field dependent cognitive style having high achievement motivation and students with field dependent cognitive style having low achievement motivation.

- No significant difference exists in academic achievement of students with high achievement motivation taught through multimedia instruction and students with low achievement motivation taught through multimedia instruction.

- No significant difference exists in academic achievement of field independent students having high achievement motivation taught through traditional instruction and field independent students having low achievement motivation taught through multimedia instruction.

- No significant difference exists in academic achievement of field independent students having high achievement motivation taught through traditional instruction and field dependent students having high achievement motivation taught through multimedia instruction.

- No significant difference exists in academic achievement of field independent students having low achievement motivation taught through multimedia instruction and field dependent students having high achievement motivation taught through multimedia instruction.

- No significant difference in academic achievement of field independent students having low achievement motivation taught through traditional instruction and field dependent students having high achievement motivation taught through traditional instruction.
6.2 IMMINENT IMPLICATIONS OF THE FINDINGS

Multimedia coupled with ICT in particular, is found to play a key role in the modern education system. Students find it easier to refer to the internet than searching for information in literature and reference books. Modern technologies including e-Portals and e-depositories opening up within the country and abroad as well as satellite communication inputs in the teaching-learning process have an immense import to cause excellence in schooling. Their impact is now being increasingly felt in the whole domain of education and educational endeavors. Education, being a lifelong process, needs a vast variety of multimedia resource to provoke radical changes woven around the curricula besides the combination of text, graphic, art, sound, animation, video elements etc. representing a new wave in educational technology. Identifying the benefits of technology integration in enhancing the quality of education and promote access of resources, positively impacts students’ learning and their meta-cognitive skills, especially in the interface of the field of Cognitive Styles and Achievement Motivation as the main factors affecting academic achievement.

The purpose of the present study was to ascertain the effect of multimedia instruction on academic achievement in relation to cognitive styles and achievement motivation. Findings of the study clearly indicate that Multimedia can be perceived as a big change for education, and there is lot of scope for research in this field. What has been the conventional teacher centered approach is now seeing a shift into one which emphasizes on student - centered learning. Multimedia instruction can revamp the traditional teaching learning process and make it more effective as it provides greater opportunities for the students to learn. It brings an enhancement in achievement and provides new multisensory learning experiences. However, cognitive styles and achievement motivation of the student does interfere with their performance. Where field independent students can learn independently through multimedia instruction, field dependent students need help of the teacher/mentor to perform better. Students with high achievement motivation taught through multimedia instruction are likely to adopt deep understanding than that of students with low achievement motivation. With the advent of this pervasive information technology, many educational institutions are currently gearing their teaching and learning
towards one which uses multimedia instruction to enhance the student’s learning process. The findings suggest that multimedia can play a vital role in teaching of English, so educationists need to develop more sophisticated understandings of the conditions, circumstances, means and mechanisms through which multimedia can be closely connected to the young learners and their English language classrooms.

### 6.3 EDUCATIONAL IMPLICATIONS

The present research shows that in changing from a traditional ‘chalk and talk’ method to multimedia instruction not simply enriches class room teaching, it also significantly improves the academic achievement of students. It also implies that multimedia instruction prove to be more tangible in its effectiveness on achievement than the traditional method of instruction. It seems more practical and is widely acceptable to students. It also keeps in mind the individual differences and enables all types of students to perform better. It has many other advantages:

- The findings of the present study are not only useful to researchers in terms of further research but they also have applications to the classroom practices and organizational management of schools. The conclusions of this study may also help the teachers, parents, guidance workers to identify the low achievers, diagnose their problems and provide guidance to improve their performance.

- The findings of this study have wide implications of applying multimedia instructional strategy in quick and better achievement of the concepts of English Grammar and other school subjects. With the rapid advancement in the field of both educational and instructional technology in recent years, multimedia instructional strategy based teaching along with the usual classroom instruction has opened new possibilities for meeting the new educational needs of the contemporary society. Multimedia instructional strategy has an enormous prospective to be used as alternative instructional strategy for Indian classrooms.

- Multimedia instruction changes the role of a teacher in a way that teacher is no longer only the dispenser of education, rather plays the role of a facilitator.
Teacher actively encourages students to participate in classroom dialogue and other activities. Students feel being essential part of teaching learning process.

- Thoughtfully designed instructional strategy has immense potential of motivating learners by gaining their attention, increasing their perception, enhancing their comprehension skills and eventually resulting into greater achievement as compared to that of traditional method of instruction not only in English Grammar but also in other school subjects’ viz. Social Studies, Mathematics, Science and Information Technology.

- Multimedia instructional strategy has an edge over traditional method of instruction in view of the fact that it has equipped the teachers with the tools, the integration of which can help them gain and hold attention of students, make points clearer, inspire discussion and in general, enhance the learning process.

- This instructional strategy allow the educators to present more information, more examples, illustrations and problems for students to solve than through traditional method of instruction, thus facilitating their conceptual understanding of the school subjects.

- When technology is integrated effectively into the subject matter, teacher grows into the role of advisor, content expert and coach. Teachers can prepare amazing lesson plans with the help of multimedia.

- The result of the present study can benefit educators, administrators and instructional designers who can incorporate Multimedia Instructional Strategy in school curriculum that can prove to be effective teaching and learning strategy in diverse subject areas.

- Along with general academic achievement, multimedia instructional package can help students develop other important skills like creative thinking, comprehension, critical analysis and synthesis of knowledge.

- It is also suggested that while developing multimedia instructional strategy in English Grammar or other school subjects, levels of Cognitive Style and Achievement Motivation of students should be kept in mind so that the needs
of both Field Independent and Field Dependent and High and Low Achievement Motivation of students must be fulfilled.

- The teachers will be benefited by the results of the study since there is a positive and significant relationship among the variables of Cognitive Styles, Achievement Motivation and Academic Achievement.
- The implications of these results will encourage the teachers to turn the Achievement of the students in the context of their Cognitive Styles and Achievement Motivation in various school subjects.

6.4 SUGGESTIONS FOR FURTHER RESEARCH

Having completed the present study, the investigator has put up the following suggestions for further study:

- The present study is limited to preparation of multimedia instruction for secondary school students. A study may be conducted with some other types of teaching strategies like digital and smart classroom learning, content and mobile learning etc.
- Studies may be conducted on the technological competencies of teachers who handle different gadgets and how the teachers teach with the amount and specification of technologies available in different schools.
- The present study could be reproduced to find out how multimedia instruction affect the various abilities of the students as cognitive, emotional, social, personal and motivational aspects.
- The present study may be replicated by involving different school subjects at the secondary level.
- The present study may be replicated on a large sample even from other states of India to ensure wider application in order to get better understanding of the relationships of these variables.
- The study may be replicated on the learners of different streams from the schools, colleges and the universities.
- The present study was confined only to two levels of each of the independent variables of Cognitive Styles and Achievement Motivation and Instructional
Strategy. It may be conducted with other independent variables like, Creative Thinking, Self Concept, Problem Solving Ability and Locus of Control etc.

- The study may be replicated in the field of special education to enrich the learning of special students.