CHAPTER – II

THE REVIEW OF RELATED LITERATURE AND RESEARCH

INDEX

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It is necessary to take review of the related literature in any type of research.

"The part of the research report provides a background for the development of the present study and bring the reader up to date, since good research is based upon everything that is known about the problem, this part of the report gives evidence of the investigators knowledge of the field."

According to John Best, (1986). Every research should be based on all of the relevant thinking and research that has preceded it. According to C.V. Good (1959), A survey of related literature necessary for planning, execution and right concept of the problems and solutions. It provides guiding hypnotizes, suggestive methods of investigation and comparative data for interpretative purpose."

J.W. Best (1986) believes that," A summary of the writing of original authorities and of previous research provided evidence that researcher is familiar with what is already known and what is still unknown and untested."

The importance of documentation of research of any kind cannot be overemphasized for a vast country like India where researchers in education and all sciences are scattered in hundreds of academic bodies there is need to reviewing documents containing all the abstracts of doctoral institutional and individual researches in all areas. Practically all human knowledge can be found in book and libraries. The search for a

reference material is a time consuming but a very truthful phase of a research programme.

At a time of lively appraisal of educational development in India, when several changes are taking place in organization, curricula, and teaching techniques, it is essential to seek systematic up to date information on the correlation of the community and the school and their relationship to which the present study is devoted.

A careful study of the trends and reports written by experts indicates an urgent need for more rigorous training of educational researchers in an interdisciplinary action context It is imperative that researchers develop insight for identifying the problems, which have proved a major barrier to efforts at qualitative improvements of education when the problems are identified, individuals and research institute can provide answers to this question based on empirical research.

2.2 IMPORTANCE OF RELATED LITERATURE

The search for related literature serves several important functions. Knowledge of related research enables the investigator to define the frontiers of this field. It enables the researcher to know what has been done about the question what has been added to knowledge and what is remaining to be done.

Best says (1982) " practically all human knowledge can be found in books and libraries, unlike other animals that must start a new with each generation, human beings build upon the accommodation and record knowledge of the past. Their constant adding to the vast store of knowledge makes possible progress in all area of human Endeavour. The search for reference material is a time consuming but fruitful phase of the programme familiarity with the literature in any problem area helps the student to discover

what is already know, what other's have attempted to find out, what methods of attack have been promising or disappointing and what problems remain to be solved. (p309) this shows the importance and necessity of scanning the literature related to the problem in hand.

History provides hints to the researcher to precede in his study any avoid unnecessary efforts, using useless tools, techniques, devices and methods. This chapter considers the previous studies done by the researchers, which are related to the present problems. The knowledge and information show clearly, the past picture of the problem up to where the line of research has come and what the previous investigations have asked the future researchers to do it will also gives the proper direction and guidance to him. So that he can handle his problem with full confidence and accuracy.

"Providing a long list of annotated studies relating to the problems is ineffective and inappropriate. Only those studies that are plainly relevant competently executed and clearly reported should be included." (Best, 1982, P41).

An understanding of theory in the field enables the researcher to place his question in proper perspective one should determine whether his endeavors would be likely to add to knowledge in a meaningful way are not studies that determine whether hypothesis generated by theory can be confirmed are more useful then studies that proceed independent of theory.

Through studying related literature one learns which processors and instruments have proved useful and which seamless promising. As one proceeds through the related literature and develops increasing sophistication one may soon find oneself

seeing ways in which the studies could have been improved both the success and the failures of past work, provide insight for designing ones own study.

A through search through related research avoids unintentional replication of previous studies. Frequently a researcher develops worthwhile idea only to discover that a very similar study has already been made. In such a case he must decide whether deliberately to replicate the previous work or to change his plans and investigate a different aspect of the same problem.

The study of related literature places the researcher in a better position to interpret the significance of his own results, becoming familiar with theory in his field and with previous research prepares, one for fitting the findings of his research in to the body of knowledge in the filed. The researcher has not found studies, which are directly related to the problem. Therefore all the related studies collected for this research have been grouped under the following heads.

2.3 REVIEW OF RELATED LITERATURE

A RESEARCHES IN ABROAD

In the current study we have used pod casting to support formal learning that is otherwise delivered on paper or through web resources. In using pod casts we have aimed to make the process of learning more active and engaging by including multimedia.

Greer (2006)

Describes the need to make the content relevant to the context of the individual learner and stimulate learner interest. In

designing these activities we have attempted to adapt the content to the medium in a way to motivate students and provide a flexible 'just in time, just enough' format.

Pritchard (2004)

Although our aims were admirable we did not involve the students in the design of the content in the pod casts.

Britain etal (2006)

State that actively involving the students in the evaluation and design of a learning technology project enhanced the success of pod casting their lectures.

Similarly Kirkwood and Price (2005)

Report that students need to know not only what they are supposed to do, but why they are expected to do it and how it will enhance their learning if they are to engage with new mobile technologies.

Furthermore, many researchers have stated that learning is unlikely to be improved by the mere application of a new technology.

Alexander and McKenzie, 1998, Kirkwood and Price, (2005).

It is important to evaluate the context within which the learning took place. The tests used in this study were formative in nature and hence students' perceptions of the importance of them may have been reduced as they did not contribute to their final mark.

Research by Bolger and Somech (2002)

Claims that students are motivated to complete their degree with the minimal effort and Kirkwood (2003) states that assessment that counts towards their final grade influences the choices they make when engaging in learning activities. It may be that although all students stated that they listened to all pod casts on at least one occasion, the current intervention may not have been enough to make a larger impact on learning than reading the same material.

The nature of the pod casts allowed students to repeatedly listen to the discussion and watch images associated with those concepts. One of the most-used and successful methods of improving memory is through the use of imagery association. That is, associating an image with a piece of data or information appears to be an effective method for learning.

Reed and Hoffman, (1986).

However, our research allowed students to listen to the pod casts in both MP3 or enhanced AAC formats. Clearly there is a need in future studies to provide a clear classification framework for the variety of pod casts that are available to use with students. The style of pod cast, its duration, content and format presentation may all have different effects on learning and thus exam performance.

The results of our study appear to be at odds with other studies examining the use of pod casts and/or iPods.

Belanger, 2005, Brittain et al, 2006, Lane, 2006, Rudel, 2006, Bell et al, 2007,Dale, (2007)

Although none of these studies directly compared the use of pod casts with the same content delivered in another form (e.g. written transcript). For example, at Duke University a number of benefits for using i Pods have been identified, including greater student engagement and interest in teaching activities

Belanger, (2005).

While Belanger (2005) did not study the use of pod casts per se, the two are inherently linked. Moreover, the Duke University experience might suggest that technologies such as i Pods and pod casts may offer more subtle benefits to students than that which can be measured in an exam.

For future research it may be prudent to involve students in designing and producing pod casts to motivate them to engage with the technology. This combined with content linked to a summative assessment, which contributes to a final grade may further encourage students to realize how the use of technology enhances their learning. If students see that it has a benefit in their final exam this extrinsic motivation may encourage greater engagement with new mobile devices. An accurate weekly recording mechanism to monitor use of the technologies such as a diary may also prove beneficial in future research. With the predicted growth in the use of pod casts for recreational purposes more research is needed on whether students wish to adopt the use of mobile technologies within their education. At present a majority are using personal

computers to listen to educational pod casts indicating that mobility is not the prime drive for using this media format.

Brittain et al, 2006, Lane, 2006, Bell et al, (2007).

A clear framework for the variety of formats that pod casts are delivered in is required and how these formats influence pedagogy. The present study reinforces the idea that learning in higher education will not be improved simply by the application of a new technology. It is crucial that new innovations take into account pedagogical design, the learning context, prior student experience and institutional support mechanisms.

The I-Pod holds more than half of the digital media player market, while i Tunes accounts for over 70 percent of U.S. digital music sales (Information Week). By the beginning of 2005, Apple has sold over 15 million i Pods worldwide and sales are not fading -- for the third quarter of 2007 the sales are estimated to be 9.5 million units (Forbes). The i Pod has also spawned a major accessory and peripheral boom (such as cases, speakers, and radio transmitters).

Unlike a lot of fads, such as Hula Hoops and Pet Rocks, an i Pod can have a long-term affect on learning as it is no longer just a sound machine for listening to music, but rather an information delivery device, thanks to pod casts; in addition to storing and viewing photos, notes, and electronic books. Schools such as Duke University, Georgia College & State University, and North Carolina State University see i Pods as a learning tool. Duke University passed out free i Pods to its new freshmen to be used as

high-tech educational tools to record lectures, capture scientific data, and play language-training.

Preliminary research in to the use of Applies i-Pods in learning and teaching elsewhere, e.g. Grand Island Public School-University of Lyon, France and Duke University, Durham, North Carolina strongly suggest that there is significant potential for enhancing the learning and teaching processes using hand held media devices, such as the i pod .It is anticipated that there will be a measurable and demonstrable impact on the quality of learning and teaching as a major outcome of this project .The project development team expect certain curricular areas immediately to find appropriate and innovative use for this technology, in particular , Modern Lang usages Music, Art, English . They have confidence that staff and pupils not only in these but in other curricular areas where the application of this technology within a specific subject obvious area is less will devises practical and creative methods for appropriate use of the I-Pods across the whole curriculum Grace mount High School are already working in collaboration with an Edinburgh based learning company in the development of a series of flash objects for use in science and Mathematics. These objects will be located on the CEC Learning repository and would be available to the project.

There is an expectation that the lessons learned by city of Edinburgh teaching and support staff involved in the project will feed into routine learning and teaching.

Practice across the entire city's educational establishment well beyond the scope and life of the project.

CLEARK (2001)

LEARNING FROM LISTENING

The medium has little affect on how people learn -- the methodologies are far more important than the media when it comes to learning (Clark, 2001). The media is simply the vehicle or transporter of the learning methods. For example, if used in the same manner as in a museum tour, the i Pod simply becomes the guide. The real learning comes from the experiences that the i Pod veers you to, such as interacting with someone when led to a cubicle or department, to an activity that helps you to learn some aspect of your job, and finally learning of your new surroundings in order to paint a picture of the "whole." When it comes to learning, it is far more important with what you do with the media that surrounds you, rather than what you think that a particular medium is capable of doing to you.

CASE STUDY

Dr. Michael Barrett

Listening to heart sounds is a skill doctors are quickly losing.

(Temple University)

Listening to heart sounds is a skill doctors are quickly losing. Dr. Michael Barrett of Temple University concluded that medical students improved their stethoscope skills dramatically if they listened to certain digitally recorded soundtracks that mimic the distinctive vibrations produced by various valve problems and other cardiac conditions. Through trial and error, Barrett discovered that you have to listen to a recording about 500 times to reliably discriminate between the different sounds made by various

heart problems. Barrett produced a CD that mimicked the sounds of six abnormal heart conditions and gave it to a group of medical students, who promptly uploaded the recordings to their i Pods. About two hours and 3,000 playbacks later, the students were able to correctly identify 80% of the heart sounds on a test-up from 30% before the practice listening session.The full Times story is here. Temple University's story of Dr. Barrett's story can be fead here, which includes a couple of mp3s of heart sounds.

ALSO OF INTEREST

Expert: Internet-Mapping Bill.

On line learning a 'Life line in rural areas'.

(ohio state University)

Career changers help ill teaching shortages Report: **On line learning a 'Lifeline' in rural areas** Expert: **Internet-mapping bill** won't deter attacks Maine to expand its school laptop program stolen-data trove offers insights on bonnets.

Ohio State University's medical school has joined the ranks of colleges replacing cumbersome textbooks with the handheld Apple i Pod touch this fall.

Ohio State med school officials said the i Pod lets students study high-quality images of organs and body parts in the palms of their hands, on the fly--a welcome change from the days of endlessly flipping through textbooks to find pictures and directions for surgical procedures. The i Pod allows students to see images from several angles, take short review quizzes for helpful

reminders, and access videos documenting the many steps of a surgery or procedure.

The university is one of a handful of institutions to bring i Pod technology to its medical students. In July, officials at the University of Michigan Medical School unveiled the "Dr. i Pod" program, which lets student's watch and review lectures at any time. Their i Pod initiative was launched three years after the system was piloted using a video clip that tested the i Pod's video capabilities.

Medical students at Temple University listen to heart murmurs using the i Pod after studies showed that repetition is the key to honing stethoscope skills and diagnosing heart conditions. In 90-minute sessions, students listen to five kinds of heart murmurs up to 400 times each using the i Pod, according to the university's web site.

Temple University officials said training students to identify potentially life-threatening heart conditions by listening to abnormal heart beats would save money on pricey tests designed to classify which treatment would cure a murmur.

OSU medical students will receive i Pod touches complete with medical software over the next two years, officials said.

Justin Harper, a third-year OSU medical student who helped launch the iPod touch program, said students' familiarity with the iPod promotes consistent use of a tool that will reinforce in-depth lectures and classroom lessons.

"It has a coolness factor to it, and students want to carry them," said Harper, 28, adding that one iPod application helps students calculate dosages for patients. "With the iPod, it's convenient, it's small, and by merely having it, it encourages people to use it more. It makes it possible to carry thousands of flash cards and hundreds of articles, stuff you could not have possibly carried before."

OSU med school officials said iPods let students study and review at their own convenience.

"The personal digital assistant puts a wealth of information at the fingertips of our students. They can study when they want and where they want," said Catherine Lucey, vice dean for education at OSU. "If they are seeing a patient and a question arises, they can find the answer instantly."

Incorporating the iPod into everyday use, Lucey said, is not a trendy move that caters to a generation of students who have listened to music and watched movies on the device for years. The iPod touch's applications will help students take better care of their patients, she said. **Nikhil Sathe & Jorg Waltje (2008)**

The I Pod Project : A Mobile Mini-Lab.

(Ohio University, University of Michigan)

As a model project for innovative and engaging language instruction, the Language Resource Center (LRC) at Ohio University acquired a set of iPods (24 for a full class) equipped with iTalk Recorder Plugins. We loaned these iPods out to language instructors and their students who then used them as completely mobile Mini-Labs for a variety of projects. The

students were able to record themselves and other people (e.g. international students, native speakers), practice their speaking and listening skills, keep an oral diary, read into the i- Pod, or create pod casts while on study abroad – all this in their target language(s). Then, after syncing the i-Pod with one of the computers in the lab, students were supposed to post their recordings either to the LRC server, to their Blackboard class sites, or to email them directly to their instructor for evaluation or for the whole class to share. With the i-Pods our students gained additional opportunities to become more actively engaged and independent in their language learning process. This article will report in detail on our project, its transferability to other learning environments, and the feedback we have received from surveying more than 120 students and their instructors about their language-learning habits.

Hypotheses:

For the "I pod and voice Recorder survey" we had formed a number of hypotheses from which we derived a set of multiple choice and yes/no questions. We also provided a field for general and open-ended comments in hopes that participants would supply us with qualitative insights and observations that a more "check box approach" could not yield.

The Hypotheses that provided the starting for our questionnaire and the subsequent analysis of all incoming data were as follows.

a) Students who enjoy the class will also enjoy using the i-Pod.

b) Students who enjoy working with technology and multimedia will have no trouble handling the i-Pod.

c) Students will prefer mobility (i-Pod) to visiting the language lab.

d) Accessibility and ease-of –use will result in more time spent on task.

e) Students already make use of other technological study aids (CD Roms or publisher's interactive websites).

The Sample:

Our formal study involved classes and had a total return of 121 survey forms (100% return rate). Table and pie chart above break down these numbers into the respective language groups.

Conclusions:

In our research for this article we found that there is a dearth of studies concerning the use if i-Pods and other mobile devices as instruments for language learning. There is certainly a lot of buzz at conferences and around water coolers in teacher's languages, considered empowering, engaging, and motivational. They are perceived to help students take ownership of their language learning and to produce a higher comfort level. It seems, though, that these are mainly unsubstantiated assumptions and possible aftereffects of Apple's on-going promotion of it's I Tunes university program or the efforts by duke university, Georgia college & state university, and New York city's Blearily school, which generated headlines after they distributed i-Pods. Our results show that overall students appreciate quick and unrestricted access to their learning materials. They seem to prefer a "mobile mini-lab" to making the detour to the language lab. But our survey also brought out that students are not necessarily willing to spend much time on learning how the technology works. "I couldn't get the recorder to work", or " The thing kept freezing up on me!" may serve as a convenient excuse not to do the assignment. Most

importantly, what became very clear in the course of our project is that if a language program would like to implement the use of i-Pods on a larger scale it would be absolutely necessary to provide students with their own i-Pods. The biggest obstacle from an administrative point of view is the maintenance of the devices. Pre loading the i-Pods, delivering them explaining their use, collecting them at the end of the loan period, and lastly retrieving the recorded files turned out to be very time consuming setup coasts could be avoided or cut down upon considerable by mandating that students bur their own i-Pod or get it for at least a quarter/semester on loan. So that they can indeed take full ownership both of their learning and of the equipment. They still would need to receive initial training but then could be made responsible for up and down loading their files and assignments.

Furthermore, it would require instructors to be well versed not only in how to use the technology but also how to implement it efficiently in their classes, Hover points out that since educators move toward offering "an increasing range and variety of online, technology-mediated and self-access language-learning materials, it is important to remember and consider the needs of learners in actually utilizing these materials". It can not be stress enough that technology in itself is not a panacea as some hard-core proponents and administrators would like us to believe. Integration, adaptation, and preparation are a must. Why embark on convoluted projects if they are neither designed nor perceived as beneficial for the students? Too often educators are putting the cart before the hose, they get enamored with a certain type of technology and the bells and whistle that come with it and then try to create a use for it. We tend to forget the fact that often there are

easier ways to achieve some of our goals and objectives our students, however, are not easily duped or blinded, uninspired, teaching will not be counter balanced by a half-backed use of technology.

Grant Abt1 and Tim Barry (2007)

The Quantitative effect of student's using podcasts in a first year undergraduate Exercise Physiology module.

(University of Hull, University of cambria)

This study reports the quantitative effect of students using pod casts in a 1st year undergraduate exercise Physiology module. From a consort of 70 students, 50 volunteered and completed the study. Using a pre post random allocation research design, students were allocated to either a pod cast group (PG) or controlled group (CG) based on a 32 question multiple-choice exam. The PG then listen to size pod casts over six weeks, while the CG were provided with an exact transcript of the pod casts in printed from to ensure that both groups were provided with the same content. After six weeks both groups were re-examined using the same test. Data were analyzed using the effect size statistic and 90% confidence intervals. The CG improved by 46%. The difference between the groups on the post test was a men effect size of 0.19 (90% CI : -0.16 to 0.53 [trivial to positively small]) There is almost no chance that the true effect in the population is harmful. The results of this study suggest that using pod casts provides little.

Quantitative benefit for students over and above written text when learning exercise Physiology.

Conclusion:

The current study has demonstrated that undergraduate exercise. Physiology students have gained a direct benefit from being provided with supplementary material in the form of printed text and pod casts. However, the use of pod casts provided little additional benefit over and above the printed text. That being said, listening the pod casts appears to have no detrimental effect on learning and there is a chance (48%) of a worthwhile effect. Consequently, individual academics or departments must weight this up against the time and resource commitment required to develop and support the use of pod casts for students. While the use of pod casts appears to provide little advantage over written text, there may be other 'qualitative' benefits that arise from the use of pod casts, and these have been shown in other studies. Given the infancy of pod casting and its use within education there are a range of questions that future studies need to address. However, based on the current study future research need to examine the involvement of students themselves in the creation of pod casts and also the effect of linking this creation with summative assessment.

Integrating Mobile Phone Technology in Teaching Learning process at Higher Education Level.

2.5 RESEARCHES IN INDIA

Mohanasundaram K.

Integrating Mobile Phone Technology in Teaching Learning Process at Higher Education Level.

(Government College of Education Orathanad Tamilnadu)

Modern technology is becoming an in notable part of our lives. In this context Higher education for this century in the view

information are really needs a lot of re thinking on modernization, especially in the wake of growing globalization and the implied demand for global citizenship. For this propose we have to realize that there is a dire need for inter rating mobile technology in the teaching learning process at Higher education level.

The use of mobile technology in education is known as mobile education, or M-education

M-education will provide opportunities for educators to deliver educational materials efficiently and dimension for learner educator interaction.

Educational materials can be delivered to students through mobile devices students can communicate and interact with peer students and educators in real time using mobile technology.

M-Education provides greater flexibility in student learning. It enables them tolerant when the need arises, no matter where they are challenges.

- Negative attitude towards new technology among the public.
- Cast of the mobile with latest technology is high.
- Teacher and learner should know the operation of the mobile phone with latest technology.
- Service providers should also cooperate.
- Mobile towers must be installed in large numbers.
- Bandwidth needed for the fast accessing of the Internet must also be considered.
- Memory for storage is less.
- Battery storage capacity should also be increased for long run.
- Miniature text and picture messages should be created to save the memory space and to fit to the screen.

Possibilities for sending large amount of text should be considered.

Conclusion:

In future due to the inventions and advancement in Nano technology the size of the mobile phone will be reduced and the screen size can be enlarged. The mobile phone technology will replace most of the electronic instruments and play a major role in virtual universities, M-learning and e learning. In general the mobile phone technology in future is like a canal and its function and applications is like an ocean.

KAUR, R. (1981)

An Inquiry in to the Effectiveness of self-instructional Audiocassettes in Developing Teaching skills among student – Teachers in a Three phased study,

(Ph .D . Edu ., Pan Uni.)

Objectives -

1) To develop instructional materials for the skills of probing, questioning, explaining and illustrating with examples. To prepare audiocassettes of the instructional materials prepared by the investigator for the above mentioned teaching skills.
2) To develop the skills of probing, questioning explaining and illustrating with examples through self-instructional audiocassettes.
3) To examine the effect of self-instructional audiocassettes on the general teaching competence of student teaches.

The sample consisted of thirty-two student teachers taken from Dev Samaj College of Education for women, Ferozepur city. The tools used were Raven's standard progressive matrices, socio-Economic status scale junior Index of Motivation, a questionnaire for student-teachers, self instructional audio cassettes, Borada General Teaching Competence scale prepared at the (ASE. And

observation schedules for the skills of probing, questioning explaining and illustrating with examples.

Findings -

1) Teachers of both the experimental group made continuous progress component-wise and as a whole in the skills of probing questioning, explaining and illustrating with examples.
2) The traditional techniques of teaching also helped continuous progress in the perform once of student teachers.
3) Both the techniques of training traditional and microteaching were effective in improving general teaching competence of student teachers.
4) The experimental groups exposed to both the treatments showed better performance than the control group exposed to the traditional technique only.
5) The student teacher could effectively integrate the teaching skills acquired in simulated conditions into their actual classroom teaching.
6) The self-instructional audio cassettes were effective for developing different teaching skills.
7) Immediate, pinpointed and self-feed back through audio cassettes was an effective way of improving the performance of student teachers in the use of different teaching skills.

KUMAR, A. (1981)

An experimental study of the relative Effectiveness of Three Methods of Instruction – Exposition, Method, Programmed Learning method and multi-medio method in science Education.

(Ph.D. Edu; Kur.U)

Objectives –

1) To find out the relative effectiveness of the three methods of instruction-expository method programmed learning method and Multi-media method.
2) To study the relative retention in learning through these three methods.
3) To develop a programme in branching style on the selected unit of content in biology and.
4) `To develop multi-media text on the programmed content.

In order to experimentally study the relative effectiveness and the interaction between the three methods and the two levels of intelligence, a 3 x 2 factorial design was employed. The biology students of classes IX and X of two inter-college formed sample of the study. In all 180 students were divided in to three groups of sixty students each. One group was given instructions through the programmed learning method, the other through the multi-media method. All the students of the three groups were administered the criterion test as pre test then on the completion of the respective treatments these three groups were again administer the criterion test, After fifteen days, the same criterion test was read ministered.

Findings -

1) The multimedia method was more effective than either the programmed learning method or the expository method.
2) The programmed learning method was more effective than the expository method.
3) Retention in learning by the multi media method was higher than by the other two methods.
4) Retention in learning by the programmed learning group and the expository group was equal.

5) There was no interaction between the three methods of instruction and the levels of intelligence.

SUTHAR, K.S. (1981)

A study of performance on programmed learning material in relation to some Psychological Characteristics.

(Ph. D. Edu; SPU.)

Objectives –

The Major objectives of the study were.

1) To develop programmed learning material (PLM) in algebra for class VII.
2) To compare the achievement in algebra of students with different study habits, learning through the PLM and the traditional way of teaching.
3) To compare the achievement in algebra of students with different reasoning abilities.
4) To compare the achievement of students having positive and negative attitude towards Mathematics.
5) To compare the achievement of students with high and low motivation towards of students with high and low motivation towards school learning through PLM and the traditional way of teaching.

The sample consisted of 500 pupils of standard VIII from representative secondary schools of Kaira District. The investigator developed and tried out PLM in algebra for standard VIII in all the units such as set theory, rational numbers, real numbers on real numbers, etc. The investigator used the study Habits Inventory scale for Attitude towards mathematics, Reasoning Ability Test, Motivation towards school and self prepared entering behavior test and terminal behavior test in algebra.

The Findings of the study was that the PLM was superior to the traditional way of teaching, irrespective of different variables.

KRISHNAN, S.S. (1983)

Development of Multimedia package for Teaching a course on Audio-visual Education.

(Ph. D. Edu.; MSU.)

Objective -

1) To develop a multimedia package for teaching a course on audiovisual education for the instructor training programme.
2) To find the effectiveness of the multimedia package in terms of achievement of trainees and change in attitude of the instructor trainees towards the multimedia package.
3) To study the feasibility of the multimedia package in terms of time and cost for the instructor training programme.

To attain the above objectives, a single group design was evolved. As many as 127 instructor trainees enrolled during the year 1981, 82 at the central Training Institute for Instructors, Madra were treated as the sample of the study. The instructional strategy was prepared in Modular form. There were five modules containing the full course units. The components of modules were programmed slides, programmed instructional materials, non-projected visual aids, self instructional materials with a manual for practical exercises, self-evaluating unit tests with answer keys, discussions, feedback etc. The strategy was implemented for one academics session. The tools used for data collection were criterion tests, comprehensive course tests and attitude scale prepared by the investigator and an English language ability test designed at the matriculation level.

Findings-

1) Ninety-eight percent of the trainees obtained more than 80 percent of the Marks on the final post-test.
2) The mean percentages of the post-test scores varied from 81.41 to 90.46.
3) The mean gain in the total scores for all the modules was found to be significant at 0.01 levels.
4) The mean gain scores of knowledge, comprehension and higher mental abilities were found to be significant at 0.01 levels.
5) The mean attitude change was found to be significant at 0.01 levels.
6) The achievement of trainees and their language ability were found to be positively related at 0.01 level of significance.
7) The feasibility of the multimedia package was established in terms of cost involved in reproduction of the various resource materials and the time scheduling in an actual institutional set up.

The implication of the study was that multimedia packages in modular form could be used for training programmes in vocational institutions.

2.6 DIRECTION FOR THE PRESENT STUDY FROM REVIEW

These reviews are related to i-Pod Technology and its effect on various variable. Those reviews are taken from Abroad, India, and Maharashtra from these reviews the researcher could get idea about nature of I-Pod, ways of using it, methodologies concerned.

In this way, review of related literature could give the proper help, direction to the solution of the problem. It can help in drawing and presenting conclusions.